



NASA-CR-159742

1980 000 5932

*NASA CR-159,742*

NASA CR 159742



PERFORMANCE OF A TRANSPIRATION-REGENERATIVE  
COOLED ROCKET THRUST CHAMBER

by

AEROJET LIQUID ROCKET COMPANY

Sacramento, California

prepared for

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

September 1979

CONTRACT NAS 3-21029

NASA Lewis Research Center  
Cleveland, Ohio

A. Fortini, Project Manager





1. Report No. NASA CR 159742		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Performance of a Transpiration-Regenerative Cooled Rocket Thrust Chamber, Final Report				5. Report Date September 1979	
				6. Performing Organization Code	
7. Author(s) H. W. Valler				8. Performing Organization Report No.	
9. Performing Organization Name and Address Aerojet Liquid Rocket Company Post Office Box 13222 Sacramento, California 95813				10. Work Unit No.	
				11. Contract or Grant No. NAS 3-21029	
12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Washington, D.C. 20546				13. Type of Report and Period Covered Contractor Report, Final	
				14. Sponsoring Agency Code	
15. Supplementary Notes Project Manager, A. Fortini NASA-Lewis Research Center, Cleveland, Ohio					
16. Abstract  This report discusses the analysis, design, fabrication, and testing of a liquid rocket engine thrust chamber which is gas transpiration cooled in the high heat flux convergent portion of the chamber and water jacket cooled (simulated regenerative) in the barrel and divergent sections of the chamber. The engine burns LOX-Hydrogen propellants at a chamber pressure of 600 psia. Various transpiration coolant flow rates were tested with resultant local hot gas wall temperatures in the 800 to 1400°F range.  This program successfully demonstrated the feasibility of:  1. Transpiration cooling with hydrogen and helium  2. Utilizing photo-etched copper platelets for heat transfer and coolant metering.					
17. Key Words (Suggested by Author(s))  Transpiration Cooling Liquid Rocket Engine Annular Thrust Chamber LO <sub>2</sub> /GH <sub>2</sub> Propellants GH <sub>2</sub> /GHe Transpirants			18. Distribution Statement  Unclassified - Unlimited		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 404	
22. Price*					

\* For sale by the National Technical Information Service, Springfield, Virginia 22161



## FOREWORD

The work described herein was performed at the Aerojet Liquid Rocket Company under NASA Contract NAS 3-21029 with Mr. Anthony Fortini, NASA-Lewis Research Center, as Project Manager. The ALRC Program Manager was Mr. Larry B. Bassham, the Operations Project Manager was Dr. R. J. LaBotz, and the Project Engineers were Mr. Steve E. Colucci and Mr. Harry W. Valler.

The technical period of performance for this program was from 3 October 1977 to 2 August 1979.

The author wishes to acknowledge the technical contributions of the following ALRC personnel:

B. W. Cathroe	F. H. Miller
R. L. Ewen	H. H. Mueggenburg
D. M. Jassowski	J. L. Pieper
L. L. Lang	D. E. Robertson
P. M. Loyd	D. H. Saltzman
G. M. Meagher	A. R. Keller



## TABLE OF CONTENTS

	<u>Page</u>
I. Introduction	1
A. Background	1
B. Purpose and Scope	2
C. General Requirements	3
D. Technical Approach	3
II. Summary	5
A. Program Objective and Scope	5
B. Test Results	14
C. Findings	21
D. Recommendations	24
III. Discussion	28
A. Program Start	28
B. Task I	28
1. Objective	28
2. Analyses	28
a. Heat Transfer Analysis	28
b. Platelet Hydraulic Analysis	50
c. Performance Loss Analysis	59
C. Task II - Detail Design	64
1. Objective	64
2. Detail Design	65
3. Critical Design Review	69
D. Task III - Fabrication and Cold Flow Testing	71
1. Objective	71
2. Fabrication	71
3. Heat Transfer Corrections	73
4. Cold Flow Testing	81
E. Task IV - Thrust Chamber Testing	97
1. Objective	97
2. Test Facility Preparation, NASA Engine Installation and Checkout	97

## TABLE OF CONTENTS (cont.)

	<u>Page</u>
3. Baseline Regen Tests	101
4. Trans-Regen Tests - First Series	107
5. Trans-Regen Tests - Second Series	128
F. Task V - Data Analysis	150
1. Objective	150
2. Thermal Data Analysis	150
3. Performance Data Analysis	182
IV. Findings and Recommendations	192
V. References	195
VI. Appendices	
A. Regen Test Data	197
B. Trans-Regen Test Data - First Series	283
C. Trans-Regen Test Data - Second Series	311
D. Thermocouple Calibration Data	397

## LIST OF TABLES

<u>Table No.</u>		<u>Page</u>
I	NASA Supplied Test Components	15
II	Trans-Regen Test Results	20
III	Trans-Regen Thrust Chamber Operating Conditions and Unblocked Heat Flux Distribution	30
IV	Metering Platelet Designs	57
V	Metering Platelet Locations	57
VI	Instrumentation Platelet Metering Design	78
VII	Final Platelet Designs	78
VIII	Stacking Sequence of Platelets	79
IX	Instrumentation Platelet Wall Temperature Bounds	79
X	Summary of Coolant Supply Pressures and Mass Flow Rates	82
XI	Section 1 Only Cold Flow Test Results - Trans Regen Chamber	93
XII	Total Stack Cold Flow Test Results - Trans Regen Chamber	94
XIII	Measured Circumferential Flow Distribution, Trans-Regen Platelet Stack Cold Flow	96
XIV	Test Matrix	98
XV	Test Matrix - Ancillary Program	139
XVI	Trans-Regen Thrust Chamber Operating Conditions	140
XVII	Trans-Regen Operating Levels and Kill Units	142
XVIII	Test Matrix Revised	146
XIX	Trans-Regen Thermal Data	151
XX	Revised Test Matrix	166
XXI	Trans-Regen Test Results Summary	175
XXII	Thermocouple Calibration Summary	179
XXIII	Performance Data	185

## LIST OF FIGURES

<u>Figure No.</u>		<u>Page</u>
1	Thrust Chamber, Trans-Regen	6
2	NASA-LeRC Supplied Test Assembly Used for Reference Performance Tests	13
3	Regen Test Set-up	17
4	Trans-Regen Temperature Data	18
5	Platelet Hot Gas-Side Wall Temperature vs Coolant Flow Data	22
6	Specific Impulse versus Overall Mixture Ratio	23
7	Bartle and Leadon Heat Flux Blockage Correlation for Transpiration Cooled Walls	32
8	Heat Transfer Coefficient for Laminar Flow in the Entrance Region of a Round Tube ( $Pr = 0.7$ )	35
9	Trans-Regen Wall Temperature as a Function of Coolant Mass Flux	36
10	Trans-Regen Wall Temperature vs Depth at $X = 0$	38
11	Trans-Regen Wall Temperature vs Depth at $X = -0.5$	39
12	Cooling Efficiency as a Function of Platelet Thickness	40
13	Ratio of Actual to Ideal Mass Fluxes at the Throat for Varying Platelet Thicknesses	41
14	Transpire Thrust Chamber Predicted versus Measured Wall Temperatures	43
15	Comparison of Required Coolant Mass Fluxes from Heat Balance and Bartle and Leadon Correlation	45
16	NASA-LeRC Regeneratively Cooled Chamber	47
17	Minimum Burn Out Safety Margin at Throat Station	48
18	Regen Chamber Passages	49
19	2D Conduction Analysis Results for the Cooling Channel/Platelet Interface $X = -0.5$ in.	51
20	2D Conduction Analysis Results for the Throat Cooling Channel/Platelet Interface $X = 0.0$ in.	52
21	Superimposed Diffusion and Metering Platelet Configuration	54
22	Coolant Mass Flux as a Function of Axial Distances from Throat	58



# LIST OF FIGURES (cont.)

<u>Figure No.</u>		<u>Page</u>
23	Flow Rate per Section vs Axial Distance	60
24	Predicted Coolant Outlet Temperature vs Axial Distance	61
25	Cooling Performance Loss for Trans-Regen Chamber	63
26	Primary Channel Flow Grid	66
27	Instrumentation Platelet Details	67
28	Coolant Mass Flux as a Function of Wall Temperature for Various Platelet Materials	72
29	Electropolish Setup	74
30	OFHC Platelet Stack Electropolish Experiment	75
31	Comparison of Coolant Requirements from the Corrected and Uncorrected Blockage Programs	76
32	Revised Wall Temperature as a Function of Coolant Mass Flux	80
33	Coolant Mass Flux as a Function of Axial Position	83
34	Revised Cooling Performance Loss	84
35	Regen Section Water Flow Calibration	85
36	Sketch 2216-SEC-2, Modification of 1188639-2 and -3 Showing TC Installation	87
37	GN <sub>2</sub> Flow Rate Through Transpiration Section - Low Pressure	89
38	GN <sub>2</sub> Flow Rate Through Transpiration Section - High Pressure	90
39	Forward Regen Chamber	91
40	Aft Regen Chamber	92
41	Comparison of Measured and Predicted GN <sub>2</sub> Flowrates, Section 1 Cold Flow of Trans-Regen Platelet Stack	95
42	Trans-Regen Test Stand with NASA Regen Chamber, Left Side View	99
43	Head-On View of Test Stand with NASA Chamber	100
44	Test Stand with NASA Regen Chamber, Right Side View	102
45	NASA-LeRC Cylindrical Spool - Post Test View from Forward End	104
46	NASA-LeRC Water Cooled Plug and Injector - Post Test	105
47	NASA-LeRC Cooled Plug Viewed from Aft End	106

LIST OF FIGURES (cont.)

<u>Figure No.</u>		<u>Page</u>
48	Thermocouple Readings, Test No. 105 and 106	108
49	Thermocouple Readings, Test No. 107	109
50	Thermocouple Radial Location	111
51	Trans-Regen Temperature Data	112
52	Comparison of Measured and Calculated Performance	113
53	Platelet Temperature as a Function of Location Relative to the Injector Pattern	116
54	Thermocouples TC-3, TC-4, TC-7 and TC-9	119
55	Thermocouples TC-10, TC-12, TC-14 and TC-15	120
56	Thermocouple Locations	127
57	Thermocouple Installation	129
58	Thermocouple Installation	130
59	Thermocouple Installation	131
60	Thermocouple Installation	132
61	Instrumentation Plate Temperature versus Helium Coolant Flux	134
62	Instrumentation Plate Temperature versus Helium Supply Pressure	135
63	Trans-Regen Test Article	137
64	Schematic Diagram of Test System	138
65	Minor Surface Erosion in Transpiration Section	149
66	Transpiration Wall Temperature - A Plane, Helium Coolant, Test III	153
67	Transpiration Wall Temperature - B Plane, Helium Coolant, Test III	154
68	Transpiration Wall Temperature - C Plane, Helium Coolant, Test III	155
69	Regenerative Wall Temperature - D Plane, Helium Coolant, Test III	156
70	Measured Wall Temperature versus Predicted - Helium Coolant	157
71	Actual versus Predicted Wall Temperatures - Hydrogen Coolant	159

# LIST OF FIGURES (cont.)

<u>Figure No.</u>		<u>Page</u>
72	Transpiration Wall Temperature - A Plane, Hydrogen Coolant, Test 113	160
73	Transpiration Wall Temperature - B Plane, Hydrogen Coolant, Test 113	161
74	Transpiration Wall Temperature - C Plane, Hydrogen Coolant, Test 113	162
75	Regenerative Wall Temperatures - D Plane, Hydrogen Coolant, Test 113	163
76	Transpiration Wall Temperature - A Plane, Hydrogen Coolant, Test 115	167
77	Transpiration Wall Temperature - B Plane, Hydrogen Coolant, Test 115	168
78	Transpiration Wall Temperature - C Plane, Hydrogen Coolant, Test 115	169
79	Regenerative Wall Temperature - D Plane, Hydrogen Coolant, Test 115	170
80	Transpiration Wall Temperature - A Plane, Hydrogen Coolant, Test 117	171
81	Transpiration Wall Temperature - B Plane, Hydrogen Coolant, Test 117	172
82	Transpiration Wall Temperature - C Plane, Hydrogen Coolant, Test 117	173
83	Regenerative Wall Temperature - D Plane, Hydrogen Coolant, Test 117	174
84	Wall Temperature versus Coolant Flow Rate	176
85	Film Coefficient Ratio - Normal Platelets	180
86	Film Coefficient Ratio - Instrumentation Platelets	180
87	Film Coefficient Ratio versus Percent Coolant	181
88	Comparison of Delivered and Theoretical Performance	183
89	Engine Performance	186
90	Effective System Performance Efficiency	190
91	Summary of Trans Cooling Isp Efficiency	191



## SECTION I

### INTRODUCTION

#### A. BACKGROUND

In reusable, high pressure rocket engines, high heat loads are imposed upon the thrust chamber walls, particularly at the nozzle throat. For such engines regenerative cooling has traditionally been employed to meet the cooling requirements. However, in regeneratively cooled chambers, burnout and thermal fatigue are serious problems that limit the life and chamber pressure capability of the engine. These problems can be overcome by the use of transpiration cooling of the critical regions of the thrust chamber, such as the throat section. However, for transpiration cooling certain critical technology issues must be resolved before this cooling method can be successfully applied. These issues are related to fabrication; minimizing the coolant flow rate; and coolant flow distribution to assure uniform, consistent wall temperatures.

In past technology work on transpiration cooling, the porous wall through which the coolant flowed was usually a woven wire screen and the entire inner wall surface was transpiration cooled. Difficulties were encountered in fabricating the chamber in this manner, particularly in attaching the porous matrix to the supporting structure. In addition, performance losses were high because of the large surface area to be cooled, and coolant distribution was difficult, partly because of the random porosity characteristic of the woven wire screen.

Recently, technology improvements have been made in some of these areas applicable to the design and manufacture of transpiration cooled chambers. For example, fabrication techniques, such as electroforming, photoetching, diffusion bonding, and EB-welding, have been advanced. Also, various new kinds of porous materials (called discrete porous media) have been

## I, A, Background (cont.)

developed, utilizing processes like photoetching, laser drilling, and other proprietary methods, that provide more uniform controlled porosity. For these discrete porous media, improved analytical models have also been developed that are applicable to the design of transpiration cooled rocket chambers.

In order to reduce the performance loss associated with transpiration cooling, it is necessary to minimize the coolant flow rate. This can be accomplished in two ways: (1) by carefully controlling the coolant flow to assure uniform distribution of the coolant over the cooled wall surface; and (2) by minimizing the surface area to be transpiration cooled. The transpiration/regenerative chamber concept employed in this program was evolved to meet these requirements. It provides: (1) positive coolant flow control by utilizing discrete porous media and advanced fabrication techniques; and (2) minimization of the cooled surface area, by the use of transpiration cooling for the critical throat section only. Regenerative cooling is used for the remainder of the chamber.

## B. PURPOSE AND SCOPE

The feasibility of utilizing transpiration cooling in a rocket thrust chamber is dependent upon the ability to: (1) fabricate a porous media hot gas wall; (2) properly meter the coolant flow to accommodate a non-uniform heat flux; (3) provide a long thermal cycle life; (4) minimize overall engine performance loss; and (5) analytically model the design and coolant requirements.

The objective of this program was to experimentally evaluate a transpiration-regenerative cooled rocket thrust chamber using hydrogen as the transpiration coolant and to obtain design information and verification

## I, B, Purpose and Scope (cont.)

of analytical models so that they may be applied in the future to the design of high pressure (3000 to 5000 psia), reusable rocket thrust chambers.

## C. GENERAL REQUIREMENTS

The basic design goals for this program were:

- (1) Hot side chamber wall temperature not to exceed 900°F in either the transpiration cooled or regeneratively cooled sections.
- (2) Specific impulse loss of less than one percent due to transpiration cooling.

## D. TECHNICAL APPROACH

To accomplish the program objectives, six discrete task elements were planned and implemented as follows:

### 1. Task I - Analyses and Preliminary Design

Task I consisted of the preparation of thermal and hydraulic analyses and a conceptual mechanical design. Three types of analyses were performed: heat transfer, hydraulic and performance loss. The results of these studies were utilized for the preliminary design of the regenerative chamber platelet details and platelet stack assembly. The preliminary designs were submitted to the NASA-LeRC Project Manager for approval at the end of Task I.

### 2. Task II - Detail Design

This effort consisted of preparing mechanical designs and detailed fabrication drawings from the preliminary designs established during Task I.

## I, D, Technical Approach (cont.)

A critical design review was held at NASA-LeRC after drawing completion. Copies of all detail design drawings were submitted to the NASA program manager.

### 3. Task III - Fabrication and Bench Testing

Component fabrication began after the NASA program manager had approved the fabrication drawings. Fabrication of the trans-regen components was completed and the engine assembled and proof tested to 2200 psi inlet pressure. The platelet and regen section thermocouples were installed and external leak tests as well as cold flow calibration tests were performed.

### 4. Task IV - Thrust Chamber Testing

The test facility was setup concurrent with Task III and the NASA engine was assembled in the stand for checkout. After approval of the test plan, the engine tests were conducted. A total of eleven tests were conducted: four with the NASA water cooled regen chamber and seven with the ALRC designed trans-regen engine assembly.

### 5. Task V - Data Analysis

This task consisted of the analysis, correlation and evaluation of heat transfer data and engine performance loss due to transpiration cooling. The heat transfer data analysis consisted of two parts: transpiration cooled wall temperature data analyses and regenerative cooling wall temperature data analysis used to evaluate the downstream film cooling effects produced by the transpiration coolant injected upstream of the throat.



## SECTION II

### SUMMARY

#### A. PROGRAM OBJECTIVES AND SCOPE

The overall objective of this program was to experimentally evaluate the transpiration-regenerative cooled rocket thrust chamber concept, demonstrate the feasibility and measure performance loss. A secondary objective was to obtain design information and verify analytical models so that this concept could be applied to future high pressure, reusable rocket engines.

The planned program consisted of six (6) discrete tasks: Task I - Analysis and Preliminary Design; Task II - Detail Design; Task III - Fabrication and Bench Testing; Task IV - Thrust Chamber Testing; Task V - Data Reduction, Analysis and Evaluation; and Task VI - Reporting Requirements.

The program was planned so as to evaluate the Trans-Regen concept by designing and testing a water regenerative cooled thrust chamber which included a gaseous hydrogen cooled platelet assembly upstream of the throat as shown on Figure 1. An existing annular injector and water cooled plug, supplied by NASA-Lewis, were used for these tests. In addition, an existing regeneratively cooled thrust chamber (also supplied by NASA-Lewis) was utilized in reference baseline performance tests.

The transpiration cooled chamber section was fabricated from OFHC copper platelets stacked axially such that the hydrogen gas coolant is injected at low velocities normal to the chamber wall. During testing, thermocouples installed in the transpiration section and the downstream regeneratively cooled section indicated the effectiveness of both transpiration cooling as well as the downstream film cooling effects.

Platelet design approaches used during previous ALRC programs were used on this program except that coolant passage sizes are somewhat larger than





## II, A, Program Objectives and Scope (cont.)

usual due to the lower density of the gaseous hydrogen coolant. Coolant flow control (metering) is obtained by choking in an isothermal region removed from the hot gas side. Platelets are installed in pairs, i.e., a thin metering platelet containing precisely sized channels and a thick diffusion platelet to provide internal cooling and an injection channel as well as a conductive heat flow path from the hot gas side to the coolant inside the wall.

The cylindrical regeneratively cooled chamber design was patterned after the cylindrical chamber fabricated and successfully used at ALRC during the Combustive Effects Program, "Combustion Effects on Film Cooling", Contract NAS 31-17813, NASA CR-135052, Aerojet Liquid Rocket Company, Feb. 1977.

### 1. Program Tasks

The work to be performed within the six identified tasks is summarized below:

#### Task I - Analysis and Preliminary Design

Task I consisted of analysis and conceptual mechanical design, the end product of which was the preliminary design of the platelets and the trans-regen thrust chamber. The preliminary designs were submitted to the NASA-LeRC Project Manager for approval at the end of Task I in December 1977. Three types of basic analyses were performed: heat transfer analysis, platelet hydraulic analysis, and performance loss analysis. Results of these studies were utilized for mechanical design of the platelets and preliminary design of both the regenerative chamber and platelet stack assembly. These analyses are described below:

## II, A, Program Objectives and Scope (cont.)

### a. Heat Transfer Analysis

There were four separate heat transfer analytical tasks:

(1) transpiration cooling analysis, (2) regenerative cooling analysis, (3) two-dimensional analysis, and (4) film cooling analysis. During the transpiration cooling analysis, hydrogen coolant flow requirements were calculated using the ALRC transpiration cooled nosetip model. The model was simplified somewhat in that the internal wall heat transfer coefficient was assumed constant and a fin equation was used to account for conduction effects within the OFHC copper platelets. The output of the analysis was: (1) a prediction of the thermal penetration depth to establish the minimum allowable distance between hot wall and metering channels, (2) predictions of transpiration coolant flow rate per unit area as a function of axial position, platelet thickness, and gas side wall temperature, (3) axial wall temperature distribution, and (4) transpiration coolant outlet temperature.

The regenerative cooling analysis consisted of two parts:

(1) determination of the water coolant flow rate required for the NASA regeneratively cooled chamber which was utilized in the reference performance tests (Drawing No. CF 622069) and (2) design of the cooling channels for the regeneratively cooled portion of the trans-regen thrust chambers.

During the two dimensional conduction analysis, the chamber temperature distribution in the region of the upstream interface between the regeneratively cooled and transpiration cooled sections was evaluated. This analysis was performed using the SINDA computer program.

The HOC00L computer program was used to perform the film cooling analysis. This analysis was needed to estimate: (1) the performance loss due to transpiration coolant injection in the subsonic region, and

## II, A, Program Objectives and Scope (cont.)

(2) adiabatic wall temperatures downstream of the transpiration cooled region. During this analysis, the coolant was assumed to be injected at the midpodint of the transpiration cooled region.

### b. Platelet Hydraulics Analysis

The platelet hydraulics analysis consisted of three parts: (1) computer program modification, (2) metering platelet design, and (3) platelet stack design. The DELPW computer program used to design the ANTCAT transpiration cooled thrust chamber was modified to include low Mach number gaseous hydrogen as a transpiration coolant. Compressibility effects were accounted for by using the average density for each flow passage to calculate the individual pressure drops.

The metering platelet design was based on the design used for the ARES and ANTCAT chambers. The objective of the metering platelet design task was to establish a basic design which can be used to meter the desired coolant flow rate distribution (indicated by the transpiration cooling analysis).

In the platelet design task, the transpiration cooled region was defined and the specific metering platelet configurations were determined. A prediction of transpiration coolant flow rate was made for each stack and compared to the flow rate requirements calculated during the heat transfer analysis.

### c. Performance Loss Analysis

The engine performance loss due to transpiration cooling was estimated for two preliminary designs. The loss due to coolant injection

## II, A, Program Objectives and Scope (cont.)

in the subsonic region was calculated using the HOC00L computer program using entrainment fractions measured on the Combustion Effects Program and the Plug Cluster Module Demonstration Program, Contract NAS 3-20107, NASA CR-135385.

### d. Conceptual Mechanical Design

During Task I the mechanical designer interfaced with the program analysts and created the following preliminary designs which were documented on engineering drawings.

- (1) Metering platelet design;
- (2) Diffusion platelet design;
- (3) Design assembly layout including an upstream regenerative section platelet stack.

Metering plate and diffusion plate thickness were determined during the Task I design and analysis work. The axial location and axial length of the transpiration cooled section depends on the regenerative cooling capabilities, performance loss, and metering capability.

### Task II - Detail Design

This task consisted of preparing detailed fabrication drawings and mechanical designs from the preliminary designs established during Task I and approved by NASA. A critical design review meeting was held at NASA-LeRC in February 1978 prior to drawing release. Copies of all detail design drawings were submitted to the NASA-LeRC project manager for review and approval prior to fabrication under Task III.

The following detailed designs were prepared:

## II, A, Program Objectives and Scope (cont.)

1. Top assembly drawing
2. Upstream regenerative section (inseparable assembly)
3. Downstream regenerative section (inseparable assembly)
4. Platelet stack assembly
5. Metering platelets
6. Diffusion platelets
7. Instrumentation platelets

### Task III - Fabrication and Bench Testing

Component fabrication began after NASA-LeRC approval of the drawings submitted in Task II. During this task, the components described above were fabricated, assembled and flow tested. The assembly was then proof tested at an inlet pressure of 2250 psi, followed by external leak checks around the instrumentation and cold flow calibration. Prior to completion of bench testing an engine test plan was prepared and submitted to the NASA-LeRC project manager for approval.

### Task IV - Thrust Chamber Testing

Concurrent with Task III, the ALRC test facility was prepared so that testing could start immediately after approval of the test plan. The NASA supplied regenerative chamber assembly, see Figure 2, was instrumented and assembled on the test stand. The first four tests used a range of oxidizer-to-fuel-ratios to measure the influence of mixture ratio on engine performance. The objectives of tests 101 through 104 were to check out the ALRC test system and to measure engine performance without transpiration cooling to be used as a reference for performance comparison.

Engine tests 105 through 117 used the trans-regen chamber fabricated in Task III together with the NASA-LeRC supplied injector and water



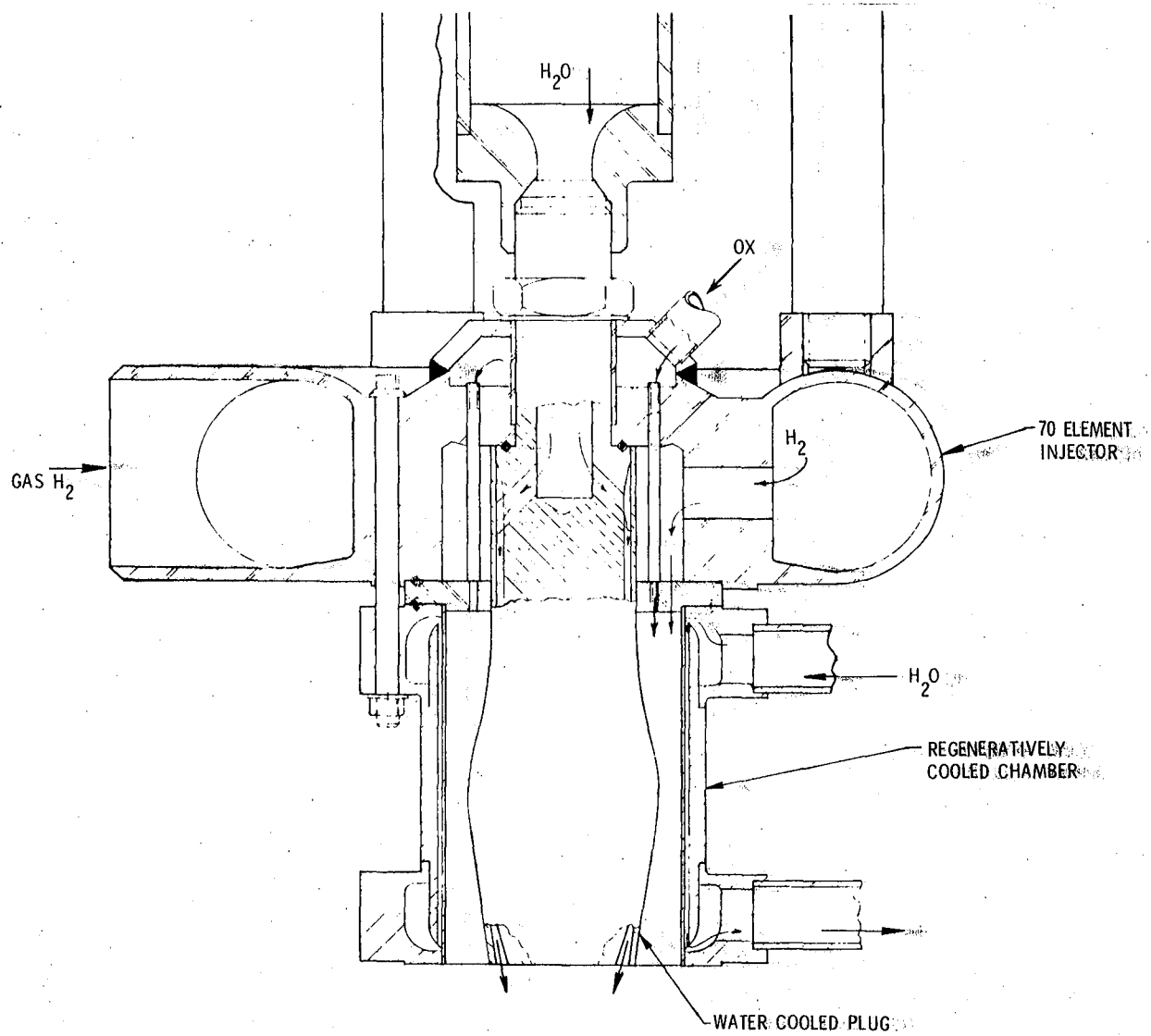


Figure 2. NASA-LeRC Supplied Test Assembly Used for Reference Performance Tests

## II, A, Program Objectives and Scope (cont.)

cooled plug assemblies. Ignition was accomplished with the external igniter and power supply provided by NASA-LeRC. A list of the NASA supplied components is shown on Table I.

### Task V - Data Reduction, Analysis, Correlation, and Evaluation

This task consisted of analysis, correlation, and evaluation of performance loss and heat transfer data.

The experimental performance loss due to transpiration cooling was determined by a direct comparison of test results with and without transpiration cooling. Heat transfer to the regenerative coolant and the thrust of the plug coolant water was considered.

The heat transfer data analysis consisted of two parts: transpiration cooled wall temperature data analysis and regeneratively cooled wall temperature data analysis.

## B. TEST RESULTS

The test program was conducted in three parts:

- |                                |         |
|--------------------------------|---------|
| 1. Baseline regen cooling only | 4 tests |
| 2. Trans-regen using hydrogen  | 3 tests |
| 3. Trans-regen with helium     | 1 test  |
| with hydrogen                  | 3 tests |

The general results are summarized in the following paragraphs.

TABLE I

NASA SUPPLIED TEST COMPONENTS

<u>Component</u>	<u>NASA Drawing Number</u>
70 element $\text{GH}_2\text{-LO}_2$ Annular Injector	CD 622347
Water Cooled Plug	CF 621983
Regeneratively Cooled Chamber	--
External Igniter	--
Igniter Power Supply	--

## II, B, Test Results (cont.)

### 1. Baseline Regen Tests

A series of four hot fire tests, test numbers 101, 102, 103, and 104, were conducted with the NASA supplied regen chamber, drawing number CF 622069. The test setup is shown in Figure 3. This testing provided baseline performance data in addition to test stand checkout and calibration.

### 2. Trans-Regen Tests - First Series

Originally only a single series of three trans-regen tests were planned using hydrogen as the transpiration coolant. The test series was intended to progress from an overcooled chamber condition using a high transpirant flow rate and a predicted wall temperature of 500°F to a low transpirant flow rate and a wall temperature of 900°F.

The first trans-regen test, No. 105, yielded actual transpiration section wall temperatures of 800 to 1200°F compared to a predicted temperature of 500°F. It was decided to repeat the test at the same operating conditions and coolant flow rate to determine if the indicated temperatures would repeat. On the second test, No. 106, wall temperatures were 800 to 1300°F. Prior to the third test, No. 107, the chamber was rotated 60° counterclockwise to determine if the thermocouple orientation with respect to the injector could be causing abnormal readings. On the third test the temperatures were 1000 to 1500°F; somewhat higher than on the previous tests. A complete temperature profile is shown in Figure 4.

The results of the first series of trans-regen tests indicated that measured wall temperatures were running from 300 to 1000°F higher than predicted. Possible reasons for the temperature disparity are:

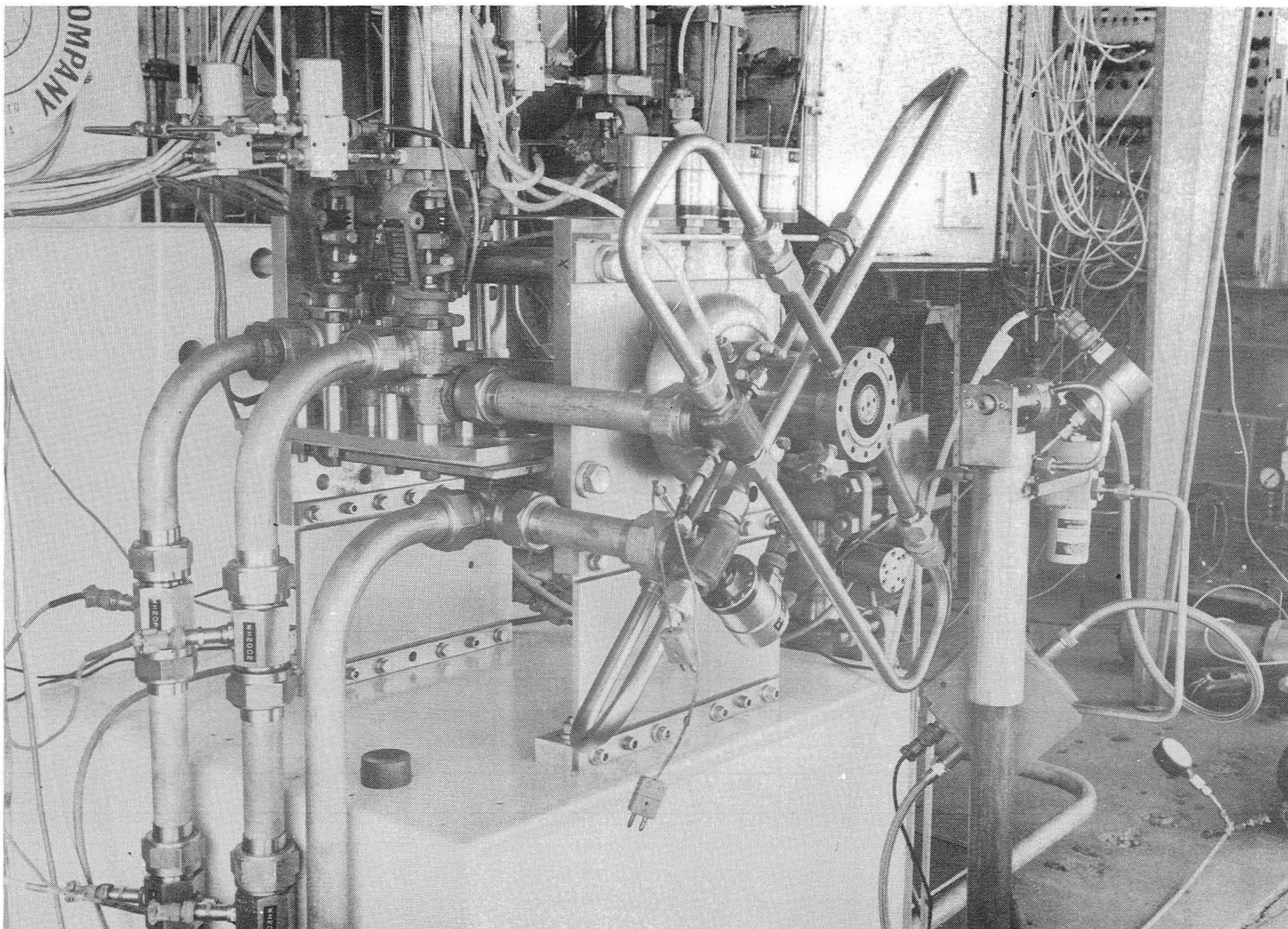
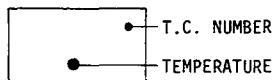


Figure 3. Regen Test Set-Up

## TC LOCATIONS

TEST NO.		12:00	1:30	1:40	1:50	3:40	3:50	5:30	5:40	5:50	7:30	7:40	9:40	9:50	11:30	11:40	11:50
105	UPSTREAM		-	- <sup>2</sup>	- <sup>1</sup>					- <sup>5</sup>	<sup>4</sup>	645					1245 <sup>3</sup>
	MID STACK		-	835 <sup>7</sup>	- <sup>6</sup>					1076 <sup>10</sup>		906 <sup>9</sup>					<sup>8</sup>
	THROAT		-	533 <sup>12</sup>	135 <sup>11</sup>					875 <sup>15</sup>		830 <sup>14</sup>					<sup>13</sup>
	DIV. NOZZLE		430 <sup>16</sup>	-	-				451 <sup>19</sup>	-	838 <sup>18</sup>					410 <sup>17</sup>	
106	UPSTREAM		-	- <sup>2</sup>	- <sup>1</sup>					- <sup>5</sup>		669 <sup>4</sup>					1280 <sup>3</sup>
	MID STACK		-	833 <sup>7</sup>	- <sup>6</sup>					1230 <sup>10</sup>		862 <sup>9</sup>					<sup>8</sup>
	THROAT		- <sup>16</sup>	550 <sup>12</sup>	151 <sup>4</sup>					940 <sup>15</sup>		806 <sup>14</sup>					<sup>13</sup>
	DIV. NOZZLE		432 <sup>16</sup>	-					462 <sup>19</sup>	-	840 <sup>18</sup>					426 <sup>17</sup>	
107	UPSTREAM						- <sup>5</sup>		<sup>4</sup>					1460 <sup>3</sup>		<sup>2</sup>	<sup>1</sup>
	MID STACK						1410 <sup>10</sup>		1080 <sup>9</sup>					- <sup>8</sup>		1138 <sup>7</sup>	<sup>6</sup>
	THROAT						1060 <sup>15</sup>		1005 <sup>14</sup>					- <sup>13</sup>		667 <sup>12</sup>	154 <sup>11</sup>
	DIV. NOZZLE					509 <sup>19</sup>	-	925 <sup>18</sup>					445 <sup>17</sup>		522 <sup>16</sup>		

NOTE: 1)



2) 12:00 IS VERTICAL CENTERLINE

Figure 4. Trans-Regen Temperature Data

## II, B, Test Results (cont.)

- a. An error in the cooling thermal models
- b. Non-uniform propellant mixing and combustion
- c. Hot gas turbulence due to wall surface roughness caused by platelet thermal growth and/or coolant slots
- d. Hydrogen coolant reactivity with the combustion gases
- e. Inadequate thermocouple to platelet heat transfer.

To answer some of these questions, prior to the second test series (test Nos. 107, 109, 111 and 113) new thermocouples were installed in the instrumentation platelets. Care was taken to maintain the thermocouple junctions flush with the hot gas wall and the TC's were brazed into the platelets to ensure good thermal contact.

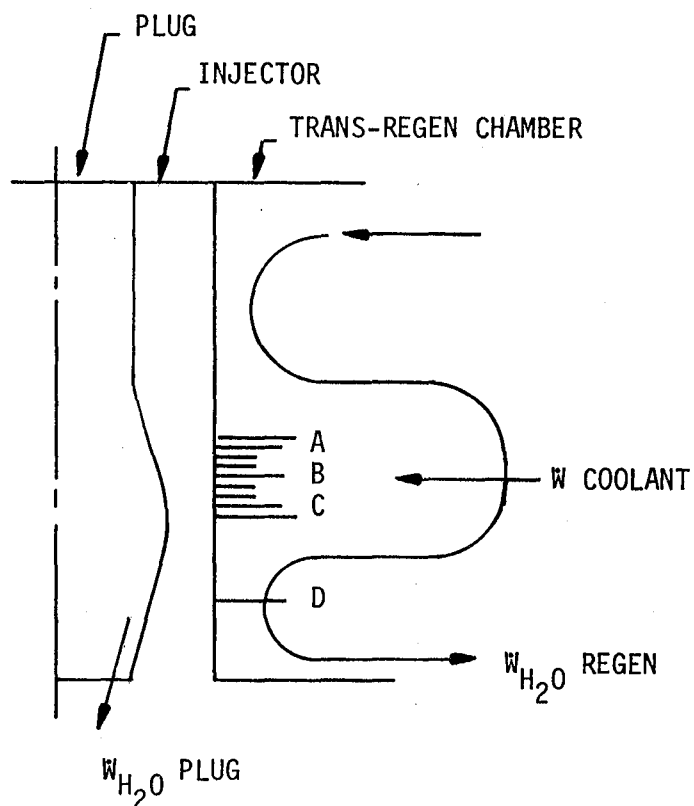
### 3. Trans-Regen Tests - Second Series

The first test, No. 107, utilized helium, a non-reactive gas, for the transpiration coolant. The results of this test were highly satisfactory with measured wall temperatures on the order of 600 to 900°F compared to an analytically predicted temperature of 700 to 900°F.

Testing then progressed into the hydrogen cooling tests with the intent of duplicating the operating conditions of the earlier hydrogen coolant tests. The thermal results are shown in Table II. Again the indicated hot gas wall temperatures in the transpiration section were significantly higher than predicted although less severe and more stable than those of the first test series.

TABLE II  
TRANS-REGEN TEST RESULTS

	<u>#111</u>	<u>#113</u>	<u>#115</u>	<u>#117</u>	
Coolant	He	H <sub>2</sub>	H <sub>2</sub>	H <sub>2</sub>	
$\dot{w}_{\text{coolant}}$	.1554	.0743	.0606	.0468	lb/sec
Temp A Nom.	853.0	844.0	980.0	1122.0	°F
Temp B Nom.	860.0	898.0	1210.0	1370.0	°F
Temp C Nom.	785.0	803.0	948.0	1115.0	°F
Temp D Nom.	465.0	490.0	493.0	505.0	°F
$\dot{w}_{\text{H}_2\text{O PLUG}}$	13.4	13.4	13.3	13.3	lb/sec
$\dot{w}_{\text{H}_2\text{O REGEN}}$	10.9	10.9	10.9	10.8	lb/sec





## II, Summary (cont.)

### C. FINDINGS

The test program was successful in that it demonstrated the effectivity of transpiration cooling the converging throat section (usually the area of highest heat flux) of a rocket thrust chamber. In this case the heat flux was on the order of 35 Btu/in.<sup>2</sup>-sec and the transpiration coolant was gaseous hydrogen. A plot of hot gas-side wall temperature versus hydrogen transpiration coolant flow rate is shown in Figure 5.

Based on the test results it has been determined that the thermal cooling models used to predict coolant requirements as a function of desired wall temperature do not adequately characterize hydrogen transpiration cooling. Phenomenon that are not adequately accounted for are;

- (1) The effect of coolant carryover - characteristic of film cooling
- (2) The molecular weight of the coolant
- (3) Coolant reactivity
- (4) Wall roughness - physical versus apparent.
- (5) Accelerating flow field having a negative pressure gradient.

An analysis of engine performance indicates that specific impulse versus overall mixture ratio appears to increase with increasing coolant flow rate. A plot of measured specific impulse and theoretical specific impulse versus overall mixture ratio are shown in Figure 6. It should be noted however that this apparent increase in Isp with decreasing overall MR (increasing transpirant flow rate) cannot be considered to be a "real" increase in performance. Physical laws preclude the possibility of a real increase in performance in a chamber of conventional design with an optimally operating injector. The reason for the performance trend illustrated in Figure 6 is not well understood at this time.

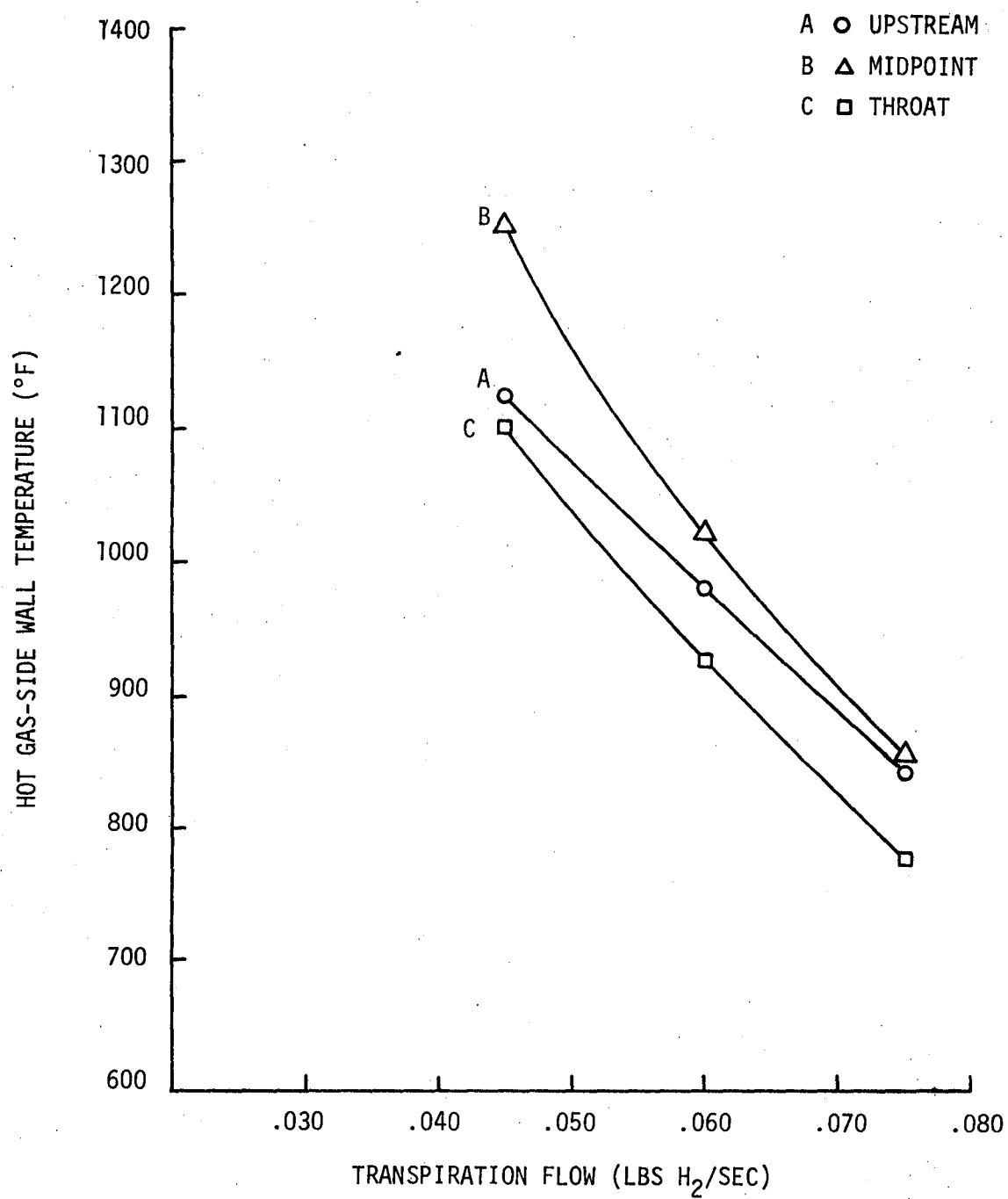


Figure 5. Platelet Hot Gas-side Wall Temperature versus Coolant Flow Rate

# TRANS/REGEN SPECIFIC IMPULSE SUMMARY

$P_c \sim 600$  PSIA

$\epsilon = 1.78$

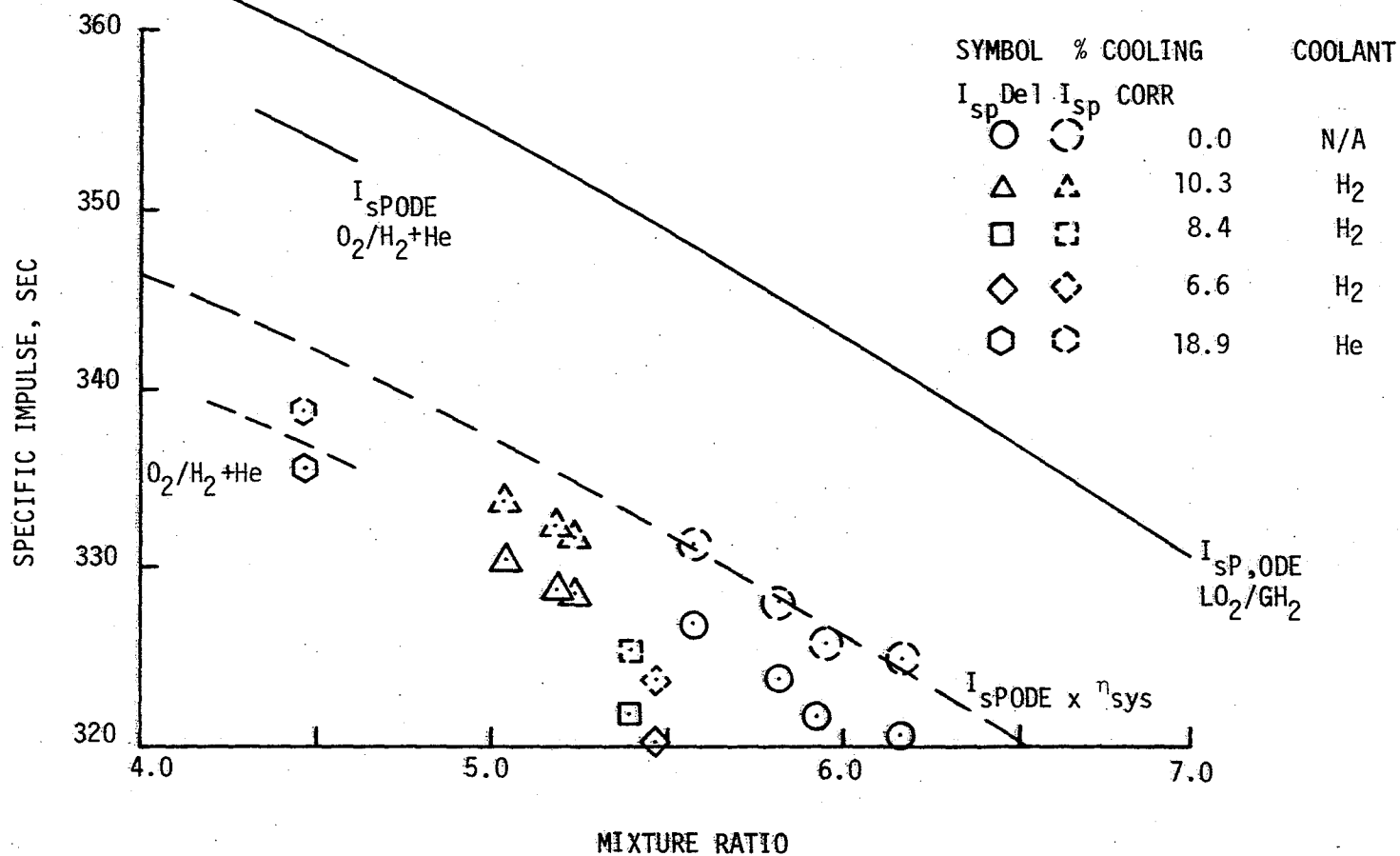


Figure 6. Specific Impulse versus Overall Mixture Ratio

## II, Summary (cont.)

### D. RECOMMENDATIONS

Based on the findings from this program and the known analytical/empirical discrepancies, the following recommendations for further development work are outlined below.

#### 1. Model Development

This activity would develop performance and cooling models for the platelet surfaces using discrete injection in the boundary layer (as opposed to uniform blowing). The model should address wall geometry (platelet thickness, slot size), coolant and freestream properties, freestream acceleration and pressure gradients, and film cooling carryover. While the model would be of a generalized nature, it should be critically evaluated on its ability to correlate the test data obtained in the current programs. Data from the literature may also be employed during model development and evaluation.

#### 2. Monolithic Structure Fabrication Technology

There is reason to believe that a smoother surface and improved cooling effectiveness would result from the use of a monolithic bonded platelet structure in place of a loose stack. To date, however, the bonding of copper platelets has been limited. In addition there has been little bonding of highly porous structures of nickel or stainless steel. This task would evaluate platelet bonding processes and subsequent porous-surface machining to evaluate the feasibility of designing and fabricating monolithic platelet cooling structures.

## II, D, Recommendations (cont.)

### 3. Program Decision Point

Prior to proceeding into hardware design it must be ascertained that the heat transfer and performance models are adequate design tools. This should be accomplished through a rigorous comparison of model predictions with existing test data. If it is apparent that a more fundamental understanding and additional test data are required to develop satisfactory analytic design tools, the program should be directed toward conducting additional laboratory-type testing. Otherwise the program might proceed directly into the design of a more representative chamber geometry high flux design.

### 4. Alternate Program

In the event that the cooling or thermal models are considered to be inadequate design tools, this program would be specifically structured to obtain the information required to successfully complete the model formulation work and might be viewed as a detour in the basic program. This activity would use the existing test system residual from NAS 3-21029. The platelets may be modified and/or re-metered.

### 5. Design of Feasibility Evaluation Hardware

The feasibility evaluation would be conducted using  $O_2/H_2$  propellants with NASA supplied injectors and regen cooled chambers. The nominal range of operating conditions would be pressures of 2000 psia or greater and thrust levels of 20K or greater (limits partially determined by the capability of the NASA hardware). The transpiration cooled platelet stacks would be designed to maximize data acquisition and testing flexibility and not necessarily to simulate a flight type design. The selection of

## II, D, Recommendations (cont.)

platelet materials and the use of a bonded or clamped configuration would be influenced by the results of the earlier fabrication technology investigation.

### 6. Testing and Test Data Analysis

Initial testing would employ a regeneratively cooled chamber to obtain baseline performance data. Subsequent testing would be with transpiration cooled hardware over a range of coolant flow rates. Cooling effectiveness, performance loss, and cooling carryover data would be acquired. Testing at higher pressure levels (above 2000 psia) should be considered as a means of increasing the incident heat flux. The performance and cooling data would be evaluated and compared with predictions.

### 7. Analytic Model Update/Alternate Fuel Evaluation

The performance and cooling models should be updated, if required, based on the test results. The updated models could then be used in the preliminary design of high flux thrust chambers using RP-1, CH<sub>4</sub>, and C<sub>3</sub>H<sub>8</sub> as transpirants. The purpose of this preliminary design activity would be to assess the feasibility of using these fuels as transpiration coolants in advanced high pressure engines and to identify areas of uncertainty where experimental data are required.

### 8. Program Decision Point

Based on the program results to this point, a decision must be made as to whether experimental data should be obtained to expand the technology base to include hydrocarbon coolants. Considerations must include the need for the technology (are the applications real?), the state of the

## II, D, Recommendations (cont.)

analytical models, feasibility of using some of the LOX/H<sub>2</sub> test hardware for hydrocarbon cooling work (e.g., hydrocarbon cooling with LOX/H<sub>2</sub> combustion gases, etc.) and program cost. Part of the decision would be the specification of the fuels to be evaluated.

If it is determined that hydrocarbon transpiration cooling data is desirable, then it should be determined which items of existing hardware can be used in the hydrocarbon testing without compromising the test objectives, and designing new hardware where existing hardware cannot be employed. The hardware would be designed for the same nominal thrust level and pressure as the hydrogen cooled engine.

### 9. Flight Type Hardware Design

The purpose of this task would be to establish the performance and weight which might reasonably be expected of a platelet transpiration cooled thrust chamber. A preliminary design of a flight type trans-regen cooled O<sub>2</sub>/H<sub>2</sub> thrust chamber would be prepared using the updated analytical models and the fabrication experience gained during the program. The thrust level and chamber pressure for the design point would be selected by NASA. The mechanical and analytical design activities should be conducted in sufficient detail to allow a chamber assembly drawing to be made and predictions made on coolant flow requirements, performance, wall temperature and weight.

### SECTION III

#### DISCUSSION

##### A. PROGRAM START

A program work plan was prepared and submitted to the NASA Project Manager for approval on 13 October 1977. Thermal, hydraulic and performance analyses commenced 14 October 1977 and mechanical design 17 October 1977. The NASA supplied regeneratively cooled chamber, injector and plug were received in late October. The chamber was cleaned and flow tested to assure that packing material had not entered the coolant passages.

##### B. TASK I - ANALYSIS AND PRELIMINARY DESIGN

###### 1. Objective

Task I consisted of analysis and conceptual mechanical design work. The end product of this task was a preliminary design for a transpiration-regenerative thrust chamber. Three types of analysis work were performed: heat transfer analysis, platelet hydraulic analysis, and performance loss analysis.

###### 2. Analysis

###### a. Heat Transfer Analysis

There were four separate heat transfer analytical tasks: (1) transpiration cooling analysis, (2) regenerative cooling analysis, (3) two-dimensional conduction analysis, and (4) film cooling analysis. During the transpiration cooling analysis, hydrogen coolant flow requirements were calculated using the ALRC transpiration cooled nosetip model. The model was simplified somewhat in that the internal wall heat transfer coefficient



### III, B, Task I - Analysis and Preliminary Design (cont.)

was assumed constant and a fin equation was used to account for conduction effects within the OFHC copper platelets. The output of the analysis was: (1) a prediction of the thermal penetration depth to determine the minimum allowable distance between hot wall and metering channels, (2) predictions of transpiration coolant flow rate per unit area as a function of axial position, platelet thickness, and gas side wall temperature, (3) radial wall temperature distribution, and (4) transpiration coolant outlet temperature. The heat flux distribution shown on Table III (from RFP Table I) was used as the unblocked heat flux boundary condition.

The regenerative cooling analysis consisted of two parts: (1) determination of the water coolant flow rate required for the NASA regeneratively cooled chamber utilized in the reference performance tests (Drawing No. CF 622069) and (2) design of the cooling channels for the regeneratively cooled portion of the trans-regen thrust chambers.

During the two dimensional conduction analysis, the chamber temperature distribution in the region of the upstream interface between the regeneratively cooled and transpiration cooled sections was evaluated. This analysis was performed using the SINDA computer program.

The HOCOOL computer program was used to perform the film cooling analysis. This analysis was needed to estimate: (1) the performance loss due to transpiration coolant injection in the subsonic region, and (2) adiabatic wall temperature downstream of the transpiration cooled region. During this analysis, the coolant was assumed to be injected at the midpoint of the transpiration cooled region.

#### (1) Transpiration Cooling Analysis

A parametric study was performed using the Bartle and Leadon correlation (References 1 and 2) to determine the amount and distri-

TABLE III

TRANS-REGEN THRUST CHAMBER OPERATING CONDITIONS AND UNBLOCKED HEAT FLUX DISTRIBUTION

A. OPERATING CONDITIONS

Injector Propellants: Gas  $H_2$ /LOX\*  
 Injector Element Type: Coaxial  
 Nominal Mixture Ratio (O/F): 6.0  
 Nominal Chamber Pressure: 600 psia  
 Regenerative Coolant: Water at 1500 psia inlet pressure  
 (Plug and Regen Chamber)  
 Transpiration Coolant: Gas  $H_2$  at 1500 psia maximum inlet pressure\*  
 Maximum Hydrogen Flow Rate: 2.0 lb/sec  
 Nominal Water Coolant Flow Rate: 25 lb/sec  
 Nominal Injector  $GH_2$  Inlet Pressure = 1020 psia  
 Nominal Injector LOX Inlet Pressure = 650 psia  
 Nominal Injector Hydrogen Flow Rate = 0.67 lb/sec  
 Nominal Injector Oxygen Flow Rate = 4.0 lb/sec  
 \*Ambient inlet temperature hydrogen

B. HEAT FLUX DISTRIBUTION

<u>Station No.</u>	<u>Axial Position, in.</u>	<u>Plug Outside Dia., in.</u>	<u>Btu/in.<sup>2</sup>-sec</u>
*0 (Chamber)	-4.074	1.600	
1	-2.074	1.600	15
2	-1.757	1.600	15
3	-1.400	1.630	16
4	-1.000	1.738	19
5	-0.586	1.933	26
6	-0.350	2.041	32
7	-0.150	2.089	34
8 (Throat)	0.000	2.100	35
9	+0.150	2.089	32
10	+0.292	2.058	29
11	+0.500	2.000	23
12	+0.800	1.915	18
13	+1.200	1.803	13
14	+1.563	1.690	10
15 (Exit)	+1.926	1.599	9

\*Station 0 is located at the flange face that interface with the injector body.

### III, B, Task I - Analysis and Preliminary Design (cont.)

bution of coolant required in the transpiration-cooled section. Figure 7 shows the Bartle and Leadon heat flux blockage correlation for transpiration cooled walls. To perform the calculations a computer program was written, designated BLKGE, which incorporates the Bartle and Leadon equation, the fin equation for the distribution channels, and various other elements. A description of the basic parts of the program follows. The Bartle and Leadon correlation used to generate the parametric data is described by

$$q/q_0 = \frac{\phi}{(1 + \frac{\phi}{3})^3 - 1} \quad (1)$$

where:

- $q$  = blocked heat flux
- $q_0$  = unblocked heat flux
- $\phi$  =  $FC_p^* / ST_0$
- $F$  =  $(\rho V)_c / (\rho V)_i$
- $C_p^*$  =  $C_{pc} / C_{p1}$
- $ST_0$  =  $h_g / (\rho V)_1 C_{p1}$
- $h_g$  = gas-side heat transfer coefficient

A subscript of "c" indicates the coolant properties while a subscript of "1" indicates the free-stream properties.

The unblocked heat flux in Equation (1) is the heat flux that has been augmented by a factor which accounts for the roughness of the wall (see Reference 3). Thus

$$q_0 = q_{0, \text{unaug.}} K_r \quad (2)$$

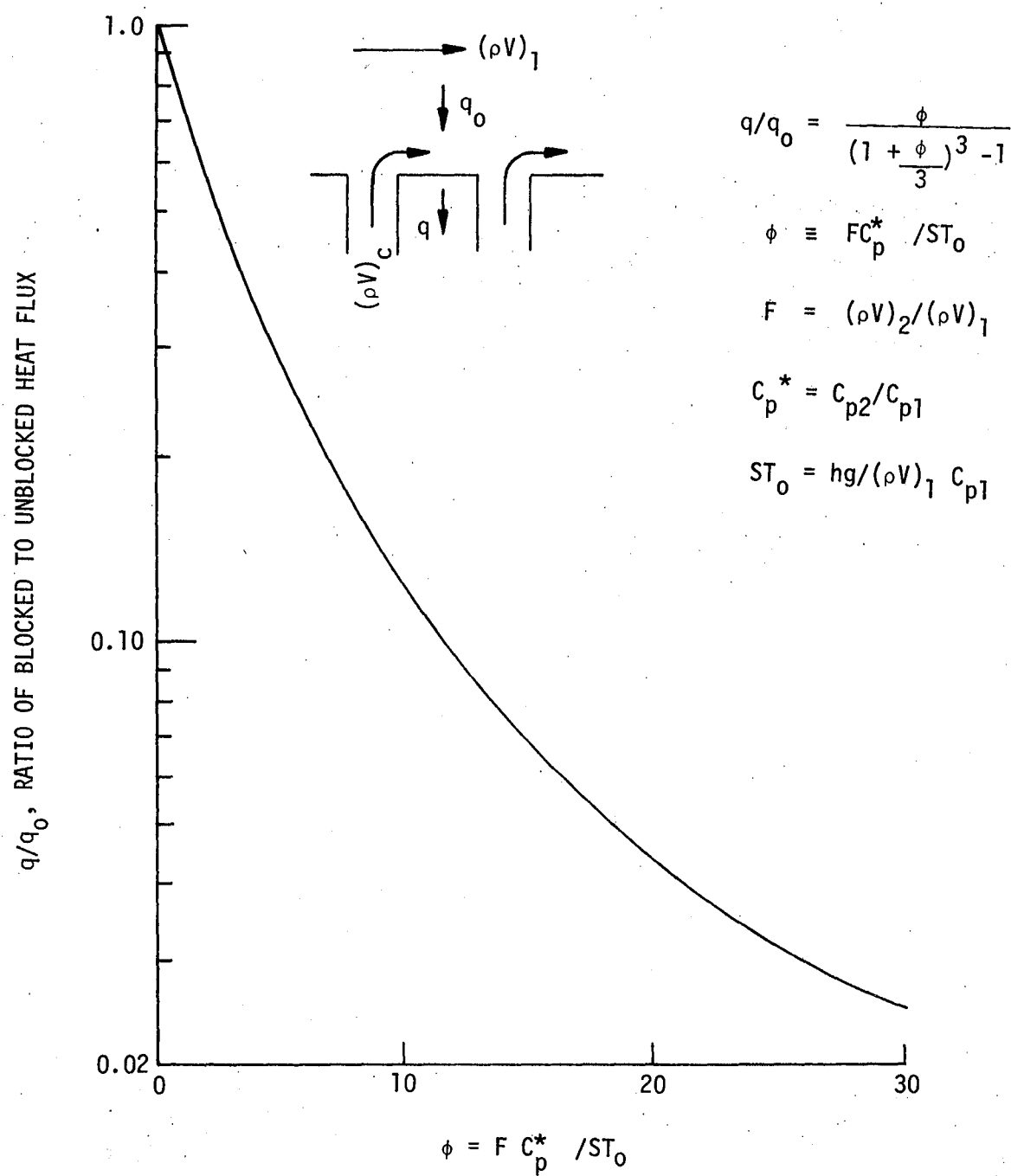


Figure 7. Bartle and Leadon Heat Flux Blockage Correlation for Transpiration Cooled Walls

### III, B, Task I - Analysis and Preliminary Design (cont.)

where:

$$K_r = \begin{cases} 1 & \text{if } Re \, k \, \sqrt{ST_0} \leq 10 \\ 1 + \frac{2}{3} \left[ \log_{10} (Re \, k \, \sqrt{ST_0}) - 1 \right] & \text{if } 10 < Re \, k \, \sqrt{ST_0} < 10^4 \\ 3 & \text{if } Re \, k \, \sqrt{ST_0} \geq 10^4 \end{cases}$$

and

Re = free stream Reynolds number  
k = surface roughness, inches

The wall temperature may be predicted by:

$$T_w = \frac{q}{k_m r_1} + T_{ci} \quad (3)$$

where:

$r_1 = -\frac{A}{2} + \sqrt{\frac{A^2}{4} + B}$   
A =  $h_L / (\rho V)_c C_{pct}$   
B =  $h_L / k_m t$   
 $k_m$  = Wall thermal conductivity  
t = Platelet half thickness  
 $T_{ci}$  = coolant inlet temperature  
 $h_L$  = liquid-phase heat transfer coefficient  
q = rate of heat flow

The liquid side heat transfer coefficient for turbulent flow is evaluated by:

$$h_L = .023 \frac{k_b}{d_e} Re_b^{0.8} Pr_b^{0.4} \left( \frac{T_{wL}}{T_b} \right)^{-.57} \quad (4)$$

### III, B, Task I - Analysis and Preliminary Design (cont.)

where:

- $k_b$  = Thermal conductivity based on bulk temperature
- $d_e$  = Equivalent diameter
- $Re$  = Reynolds number based on bulk temperature
- $Pr$  = Prandtl number based on bulk temperature
- $T_{wL}$  = Coolant side wall temperature
- $T_b$  = Bulk temperature

For laminar flow  $h_L$  is evaluated by using Figure 8.

The BLKGE program iteratively solves the simultaneous equations (1) through (4), using a table to look up the material properties at their correct pressures and temperatures. The program will either solve for wall temperature given the coolant flow rate or the coolant flow rate for a desired wall temperature and is thus a fairly versatile program.

The various inputs to the blockage program were obtained from several sources. The gas-side heat transfer coefficients and the chamber geometry were provided by the customer. The hot-gas properties were obtained from the TRAN-72 computer program. The rest of the inputs were obtained after several design iterations to determine their best values.

Figure 9 is a plot of wall temperature as a function of coolant mass flux for four different axial locations (and thus four different heat fluxes). This graph may be used to determine the desired mass flux of coolant along the transpiration-cooled surface for each of the three specified wall temperatures of 500°F, 700°F and 900°F. It should be noted that the transpiration-cooled section is limited to the first 0.50 inches of axial distance directly upstream of the throat. This constraint was placed on the design to simplify the selection of platelet thicknesses and channel dimensions.

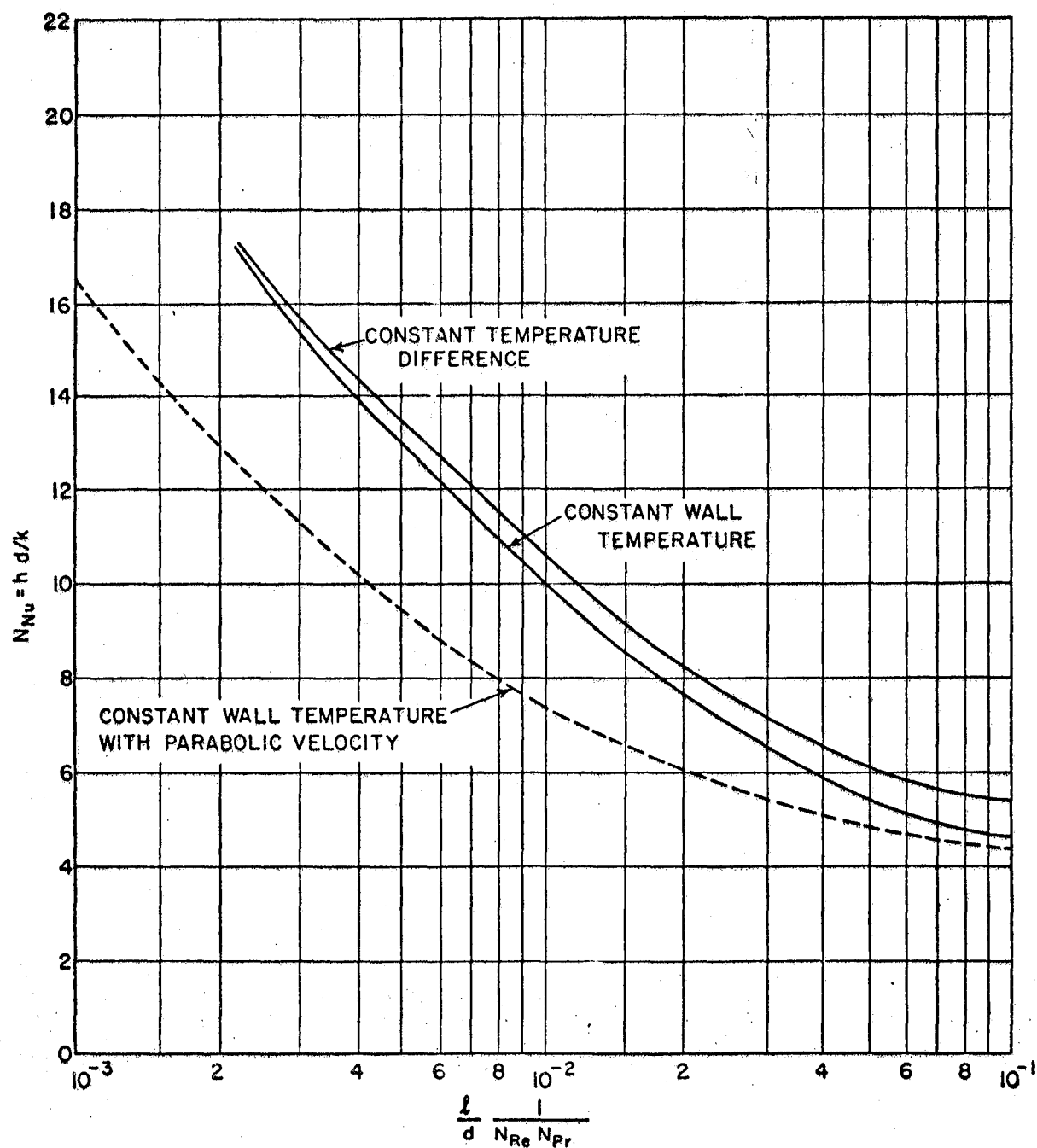


Figure 8. Heat Transfer Coefficient for Laminar Flow in the Entrance Region of a Round Tube ( $Pr = 0.7$ )

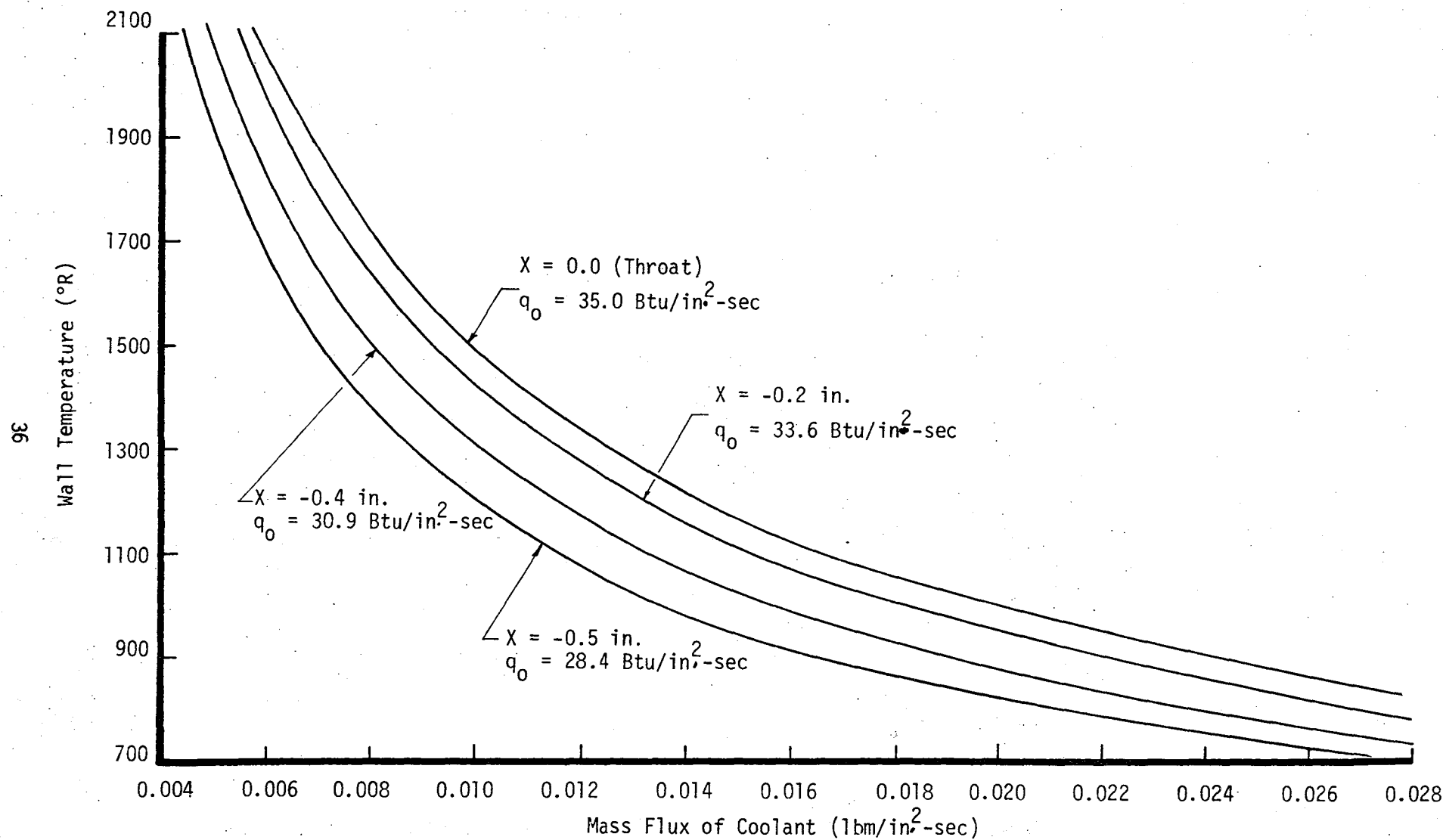


Figure 9. Trans-Regen Wall Temperature as a Function of Coolant Mass Flux



### III, B, Task I - Analysis and Preliminary Design (cont.)

The temperatures of the platelets at various depths and wall temperatures are shown in Figures 10 and 11. By making the distribution channels in the platelets 1.25 inches long the heat penetration into the metering zone is kept to a minimum level. This is desirable to make the coolant flow in the metering channel independent of any temperature effects in the distribution zone.

Two of the options available in the platelet designs were the metering platelet thickness and the distribution platelet thickness. Figures 12 and 13 illustrate the tradeoffs involved in thermal efficiency for varying platelet thicknesses. The distribution platelet was kept twice as thick as the metering platelet based on some preliminary calculations for the flow in the metering channels. The ideal wall temperature in Figure 12 is the wall temperature that would be attained if the convective heat transfer coefficient in the wall was infinite (thus making the coolant outlet temperature equal to the wall temperature). The actual wall temperature divided by the ideal wall temperature is thus a measure of the thermal efficiency of the design (a value of one being ideal and values greater than one representing less efficient systems) and is plotted on the ordinate as a function of coolant mass flux.

The ratio of actual to ideal coolant mass flux at the throat is plotted as a function of wall temperature for the various platelet thicknesses in Figure 13. This figure shows more directly the affect of platelet thickness on the performance due to the coolant being injected into the chamber. It can be seen from both Figures 12 and 13 that there is a considerable advantage in using thin platelets. They cause less performance loss than the thicker platelets because they require less coolant to be injected into the chamber for a given wall temperature.

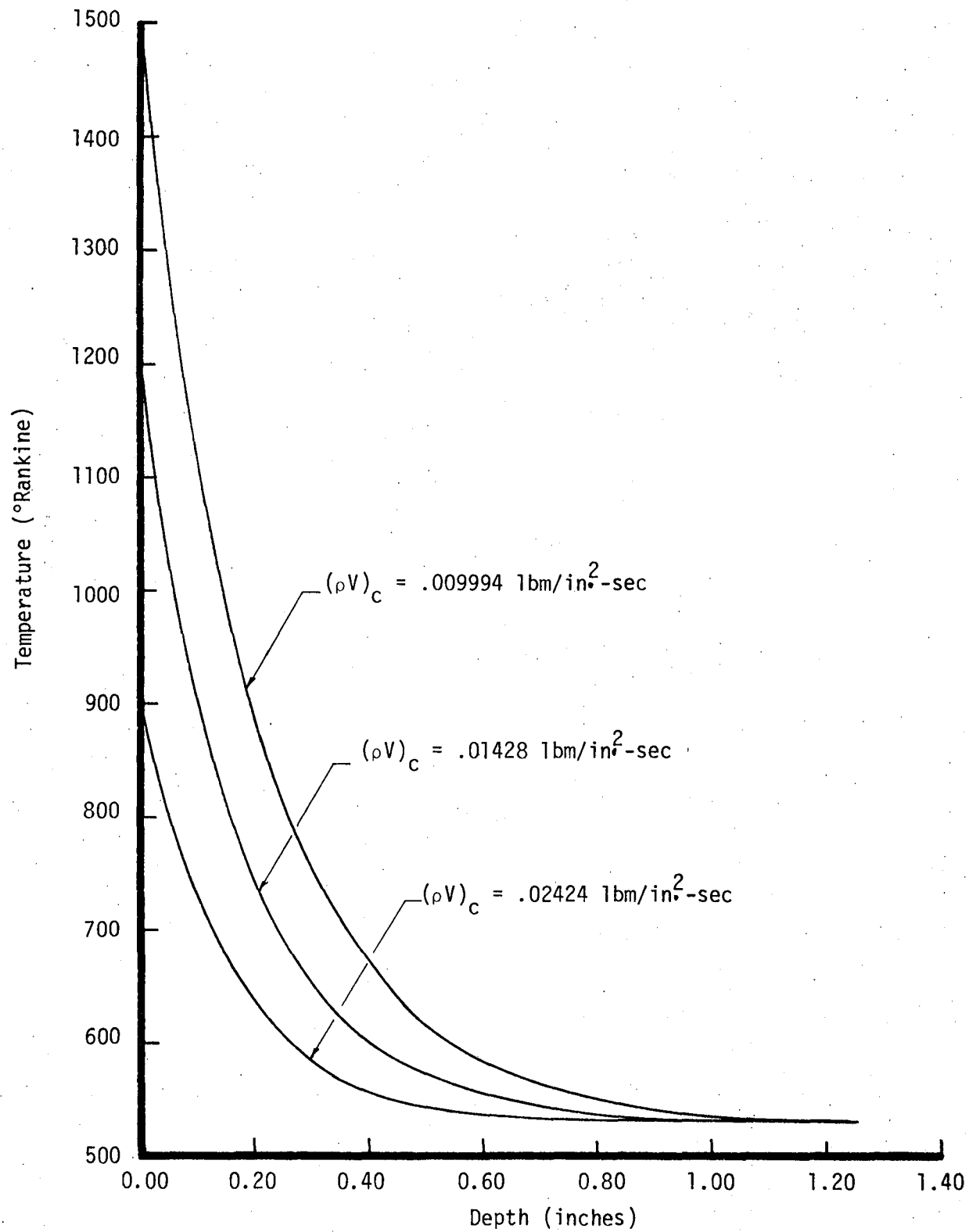


Figure 10. Trans-Regen Wall Temperature vs Depth at  $X = 0$

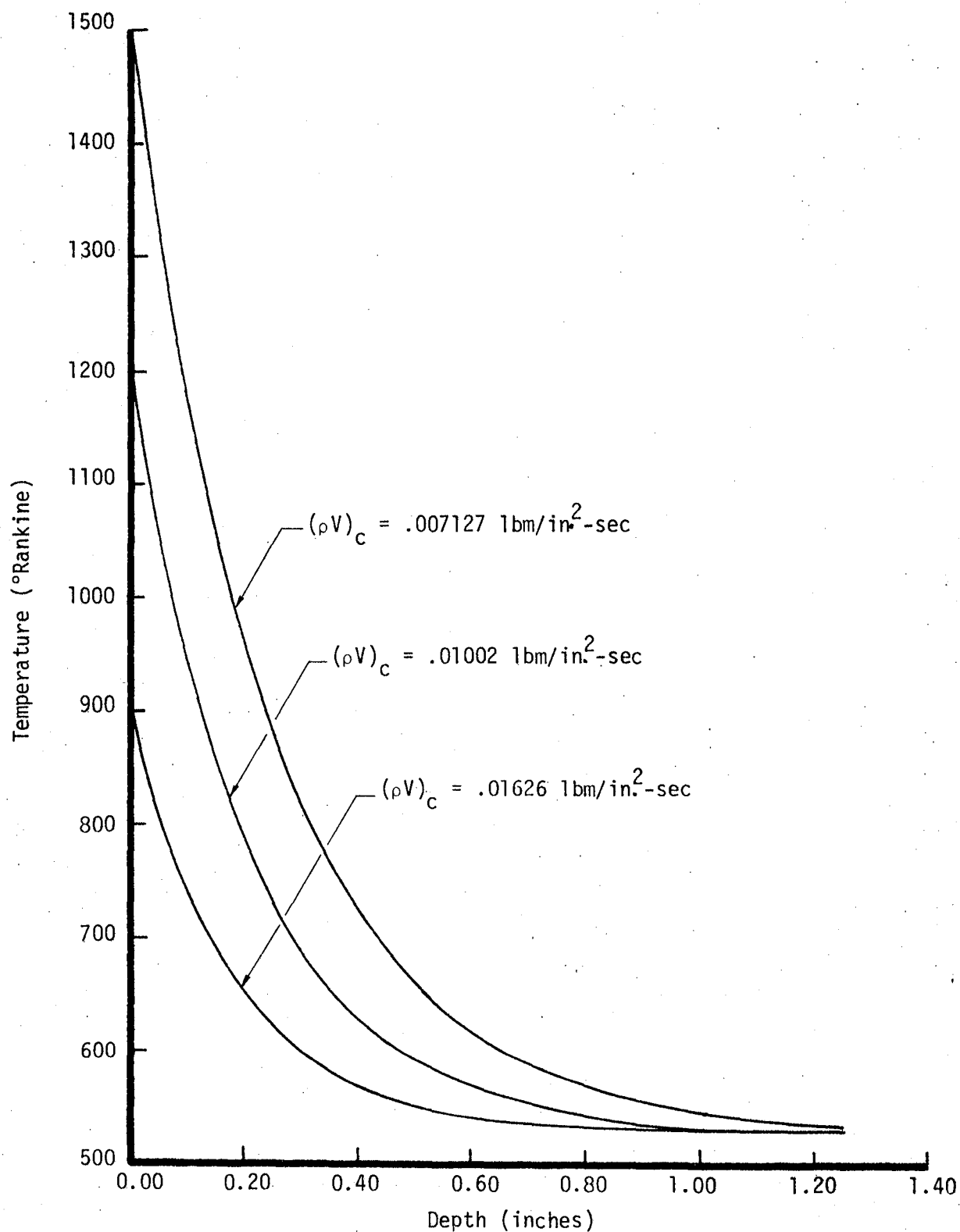


Figure 11. Trans-Regen Wall Temperature vs Depth at  $X = -0.5$

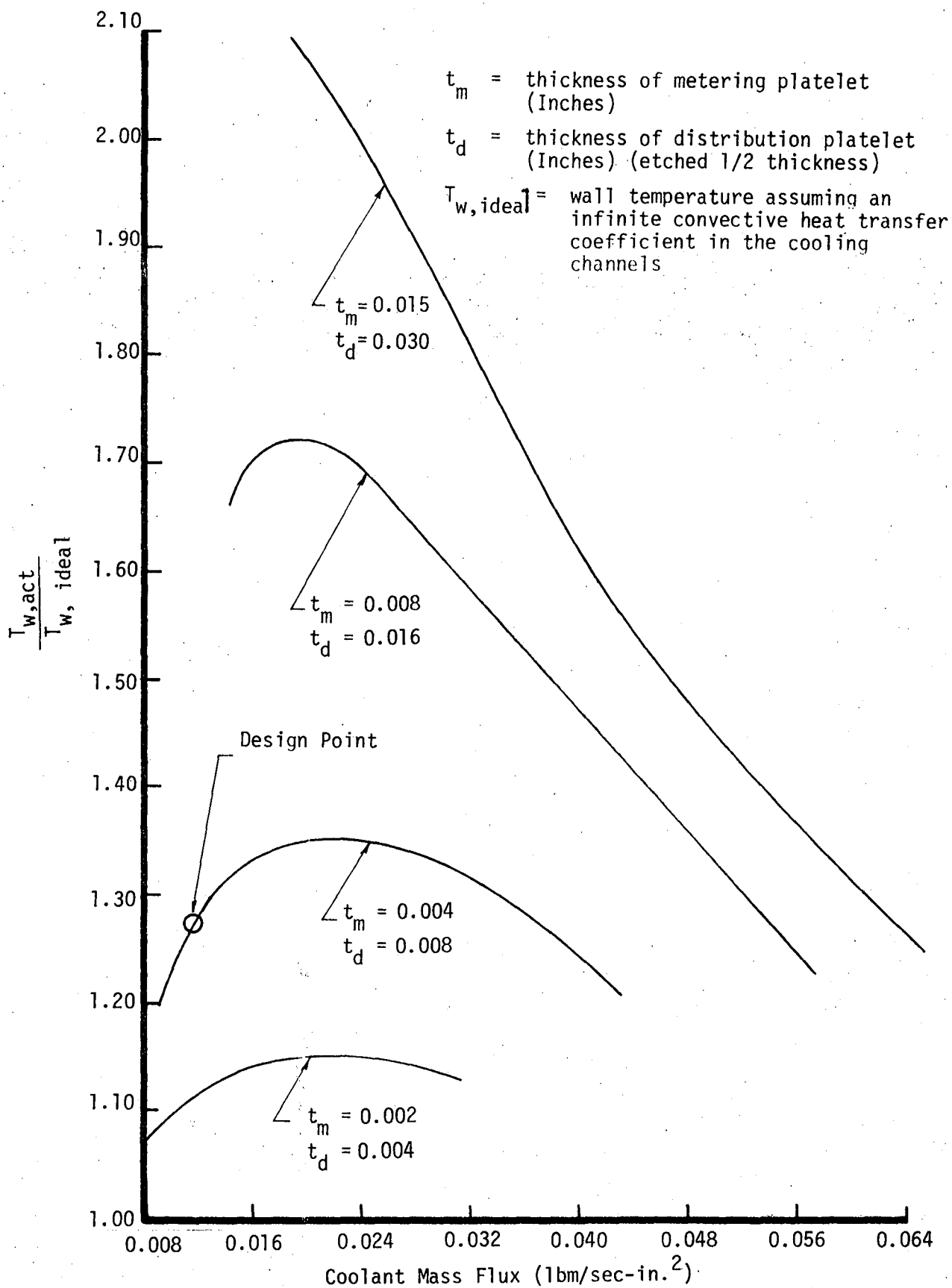


Figure 12. Cooling Efficiency as a Function of Platelet Thickness

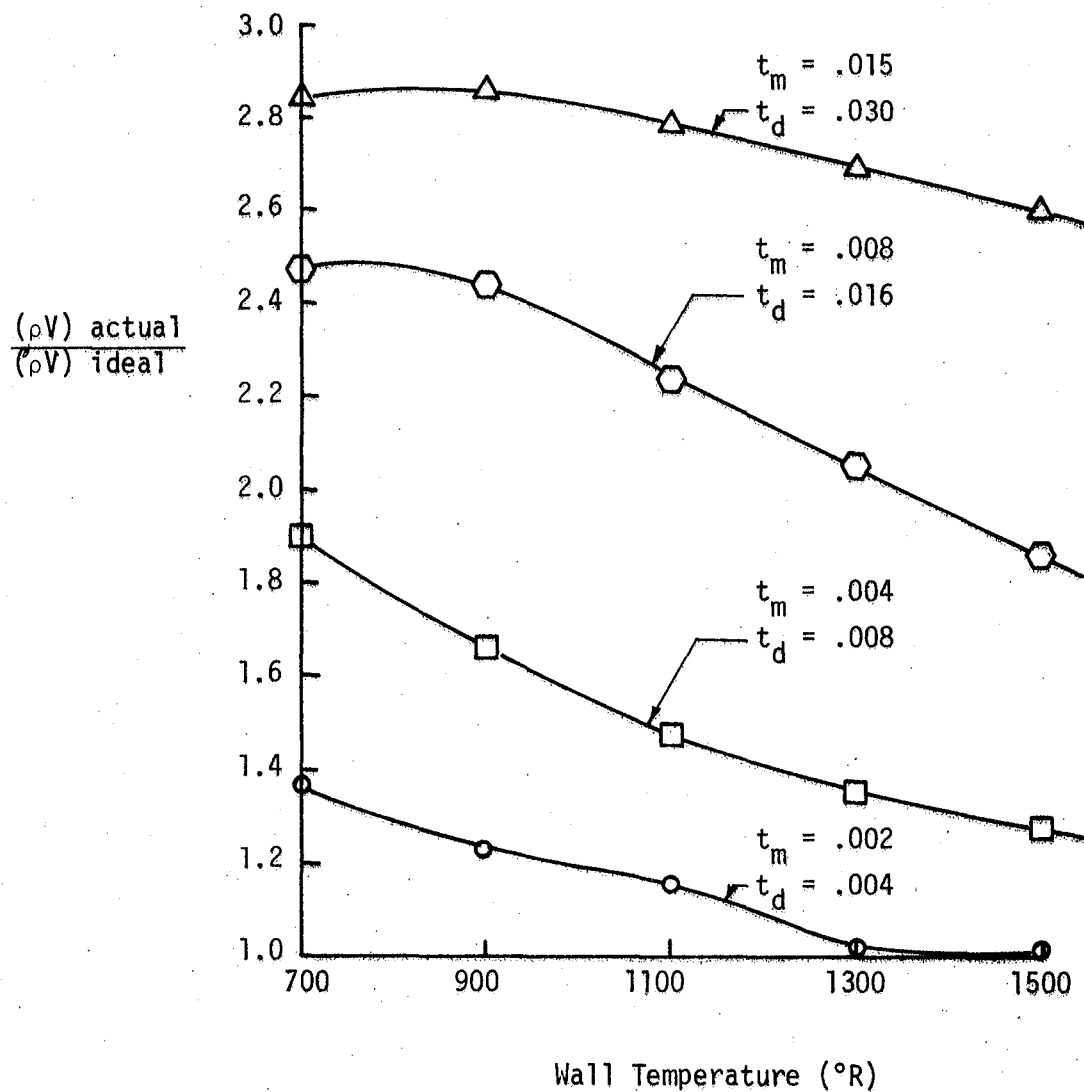


Figure 13. Ratio of Actual to Ideal Mass Fluxes at the Throat for Varying Platelet Thicknesses

### III, B, Task I - Analysis and Preliminary Design (cont.)

#### (a) Validation of the Blockage Model

To check the validity of the Bartle and Leadon correlation some existing data from the TRANSPIRE thrust chamber program (see Reference 4) was used. The data from the TRANSPIRE report which was used in the calculations was from tests made with  $N_2O_4$  and AeroZINE-50 as propellants with a chamber pressure of 100 psia. The thrust chamber was fabricated from stainless steel platelets with a fin height of 0.20 inches and used  $N_2O_4$  as the transpiration coolant. The unblocked heat transfer coefficient ranged from 0.00036 to 0.00066 Btu/in.<sup>2</sup>-sec-°F and the coolant mass flux varied from 0.0016 to 0.0023 lbm/in.<sup>2</sup>-sec. These two parameters of the TRANSPIRE chamber were an order of magnitude less than these of the TRANS-REGEN chamber. Finally, the  $N_2O_4$  coolant in the TRANSPIRE chamber experienced a phase change from a liquid to a gas, which of course does not occur with the hydrogen coolant in the TRANS-REGEN chamber.

The Bartle and Leadon equation was used to calculate theoretical wall temperatures which were then compared with the measured wall temperatures. The results are shown in Figure 14. The two values for the gas-side film coefficient represent two locations in the thrust chamber.

It can be seen from the figure that the Bartle and Leadon correlation provides a fair correlation to the TRANSPIRE data. The data scatter present in Figure 14 is not surprising after considering the many differences between the two thrust chambers which were mentioned above.

An additional check on the results of the Bartle and Leadon equation may be obtained by comparing its results to those obtained from a simple energy balance of the transpiration cooled section. The uncooled heat flux into the wall is given by:

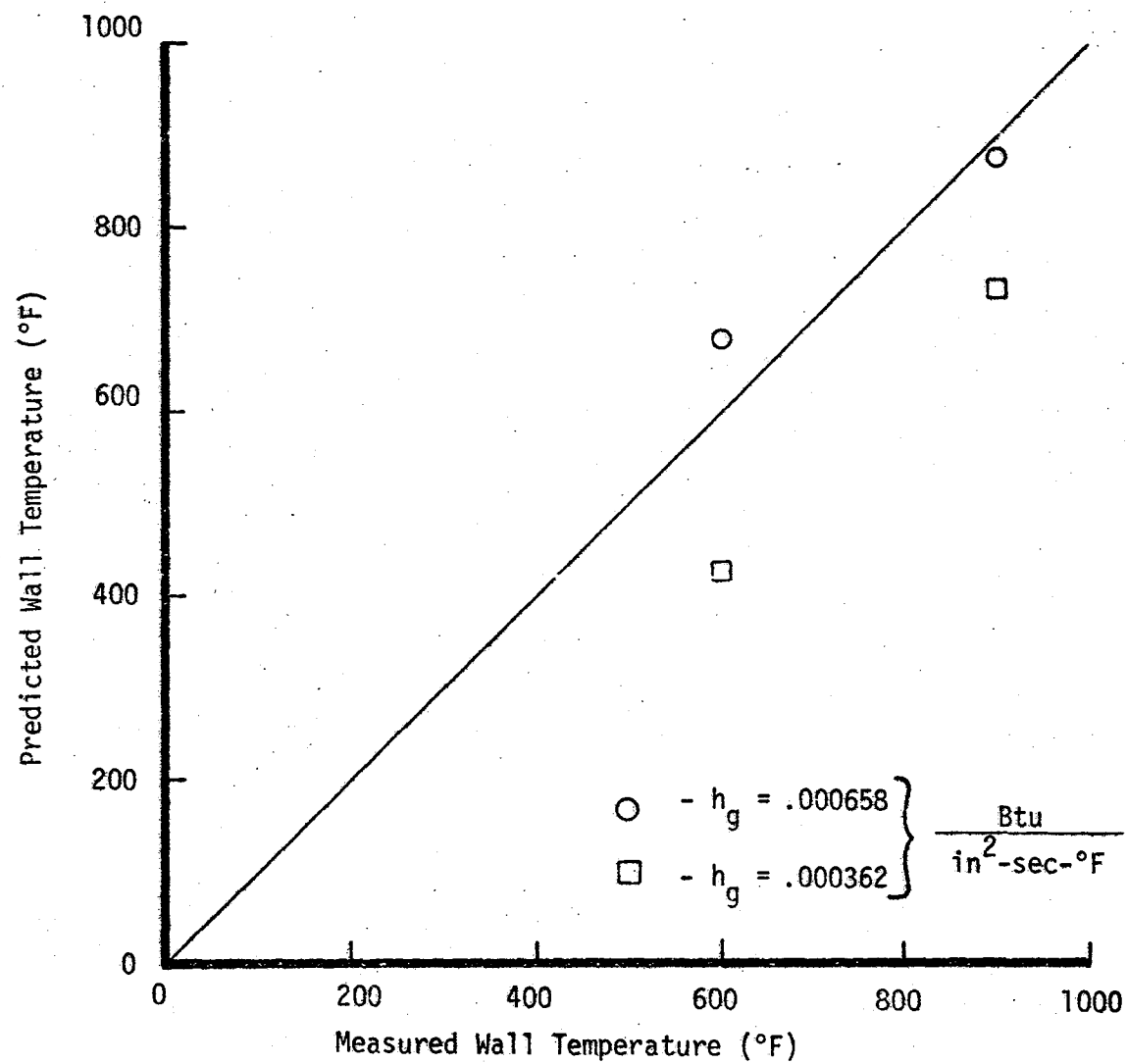


Figure 14. Transpire Thrust Chamber Predicted versus Measured Wall Temperatures

### III, B, Task I - Analysis and Preliminary Design (cont.)

$$q/A = h (T_r - T_w) \quad (5)$$

where:

- $q/A$  = heat flux
- $h$  = gas-side film coefficient
- $T_r$  = hot gas recovery temperature
- $T_w$  = wall temperature

The enthalpy of the coolant as it exits the wall may be calculated by:

$$h_w = q/A \frac{1}{(\rho V)_c} \frac{100. - b}{100.} + h_i \quad (6)$$

where:

- $h_w$  = coolant exit enthalpy
- $b$  = percent of heat flux that is blocked
- $(\rho V)_c$  = coolant mass flux
- $h_i$  = coolant inlet enthalpy

Equations 5 and 6 are solved simultaneously for  $h_w$  and the coolant outlet temperature (equal to the wall temperature) may be obtained from a table of properties for hydrogen. The wall temperature for blockage ranging from 20 to 60 percent is plotted as a function of coolant mass flux in Figure 15. The same curve as calculated using the Bartle and Leadon equation is also shown along with a table showing percent of blockage for the various wall temperatures.

It can be seen from the figure that blockages of from 30 to 50 percent from the energy balance method corresponding to blockages of from 50 to 80 percent from the Bartle and Leadon equation. The difference is primarily due to the fact that the energy balance method assumes the coolant outlet temperature to be in equilibrium with the wall



# Heat Balance

$$(q/A)_{\text{Blocked}} = \rho V (H_w - H_i)$$

$$(1 - \text{Blockage}) \equiv (q/A)_{\text{Blocked}} / (q/A)_{\text{Unblocked}}$$

NOTE:

$$\frac{q}{A} = h (T_r - T_w) \text{ and } H_w = \frac{(1-b)}{(\rho V)_c} \frac{q}{A} + H_i$$

are Solved iteratively for  $T_w$

Where:  $h$  = gas-side film coefficient

$H_i$  = coolant inlet enthalpy

$H_w$  = coolant outlet enthalpy

$T_{\text{wall}} (^{\circ}\text{R})$

900  
1000  
1100  
1200  
1300  
1400  
1500  
1700  
1900

Bartle and Leadon  
Blockage (%)

78.6  
73.9  
67.5  
65.5  
62.4  
59.6  
57.1  
53.3  
50.7

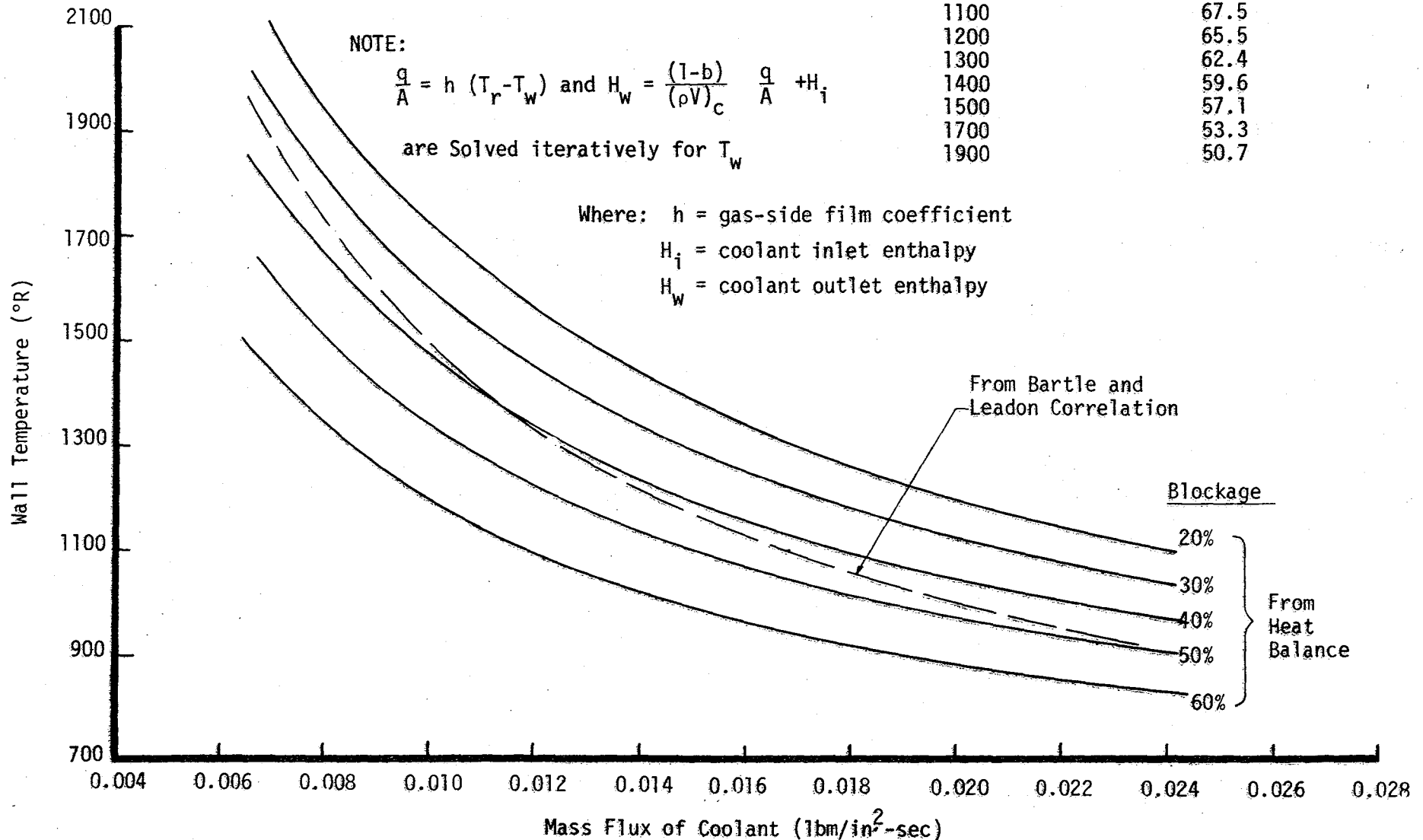


Figure 15. Comparison of Required Coolant Mass Fluxes from Heat Balance and Bartle and Leadon Correlation

### III, B, Task I - Analysis and Preliminary Design (cont.)

temperature while the Bartle and Leadon correlation produces a coolant outlet temperature which is significantly lower than the wall temperature.

#### (2) Regenerative Cooling Analysis

The NASA supplied spoolpiece (regen chamber) shown in Figure 16 was analyzed to determine the safe regenerative coolant water flow rate required, using the ALRC-HEAT computer program. The results are shown on Figure 17 for both parallel flow and counter flow cooling. As can be seen counteflow cooling yields a slightly higher safety margin, ratio of burnout heat flux to heat flux, hence counterflow will be used. A water flow rate of approximately 15 lb/sec gives a safety margin of 2 (100% over design).

Heat tranfer coefficients used for input were obtained by using the heat flux values of Exhibit A of the NAS 3-21029 contract, see Table III, together with a gas-side-wall temperature of 1350-1450° Rankine as per verbal agreement. These values obtained were slightly higher than NASA measured values for 98%C\*, especially upstream of the throat, hence were considered to be conservative.

The regen section of the trans-regen assembly was also analyzed, for various water flow rates, and the regen section analytical design was determined to contain 72 channels formed by a standard  $.063 \pm .002$  inch saw cutter,  $.053 \pm .002$  inch deep with a wall thickness (bottom of channel to gas-side) of .050 inch of copper. This is shown on the sketch, Figure 18. A thicker wall is used (.050 instead of .035 in. on the NASA chamber) which will be capable of higher pressure operation, if desired, for the future.

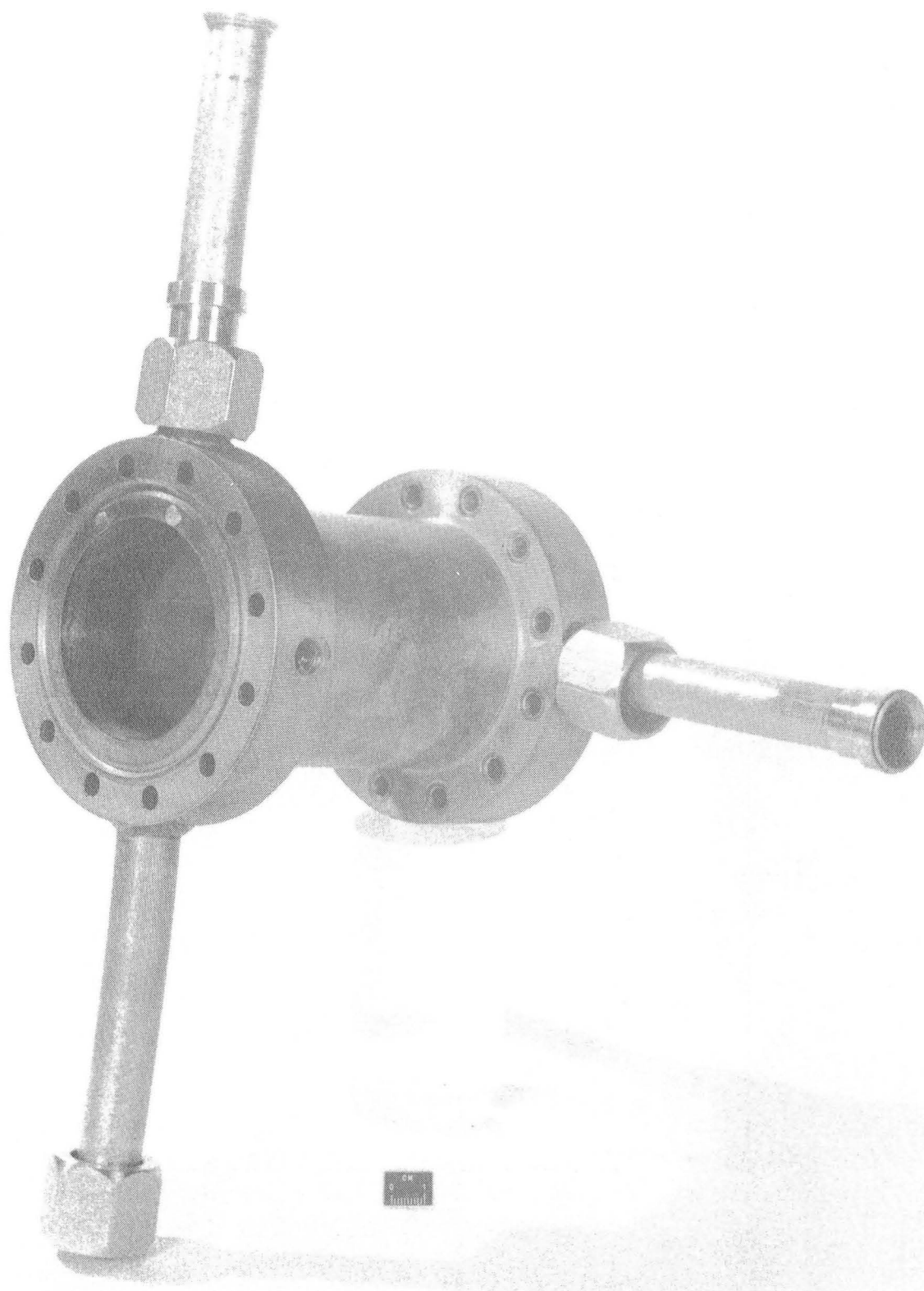


Figure 16. NASA-LeRC Regeneratively Cooled Chamber

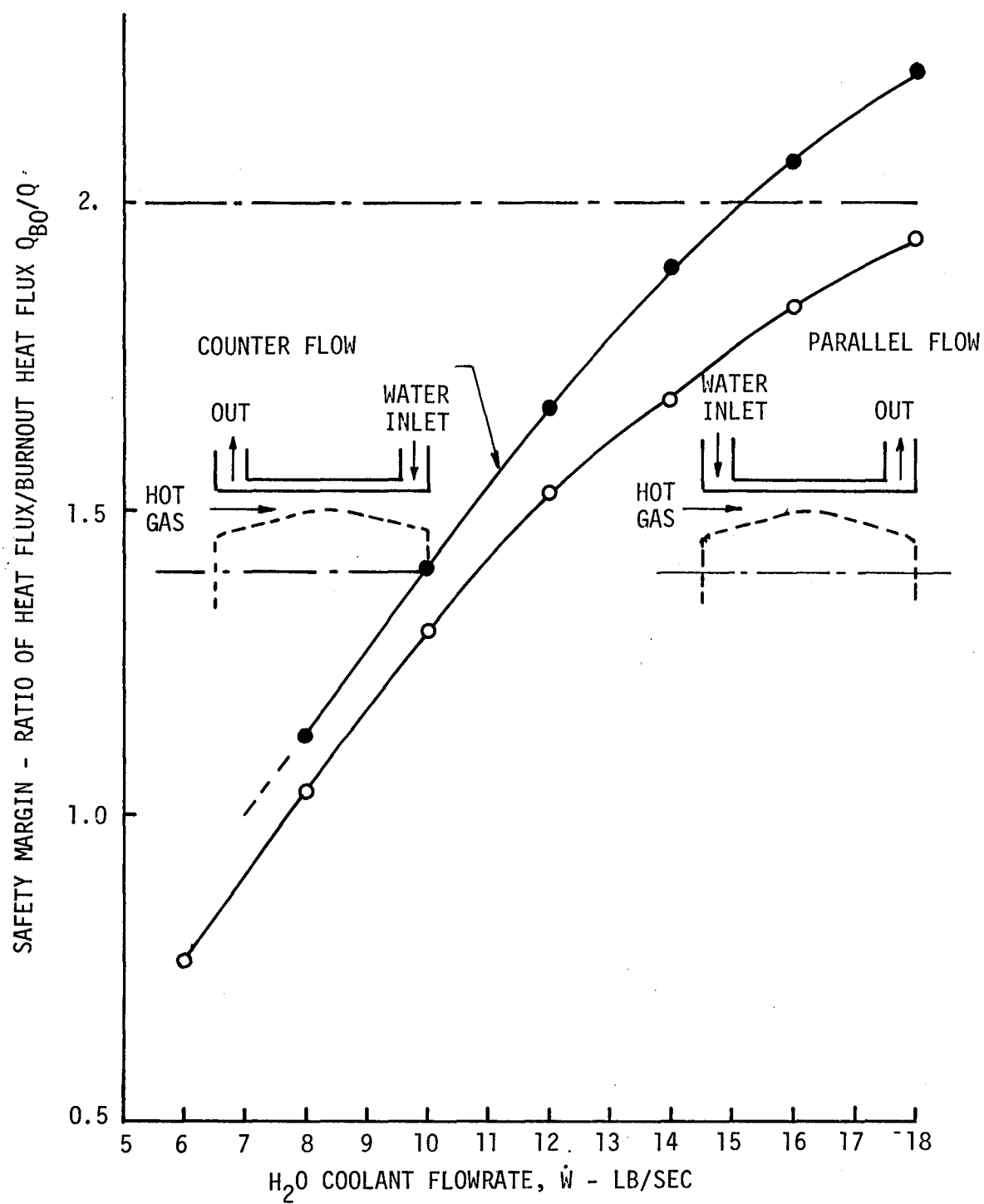


Figure 17. Minimum Burn Out Safety Margin at Throat Station

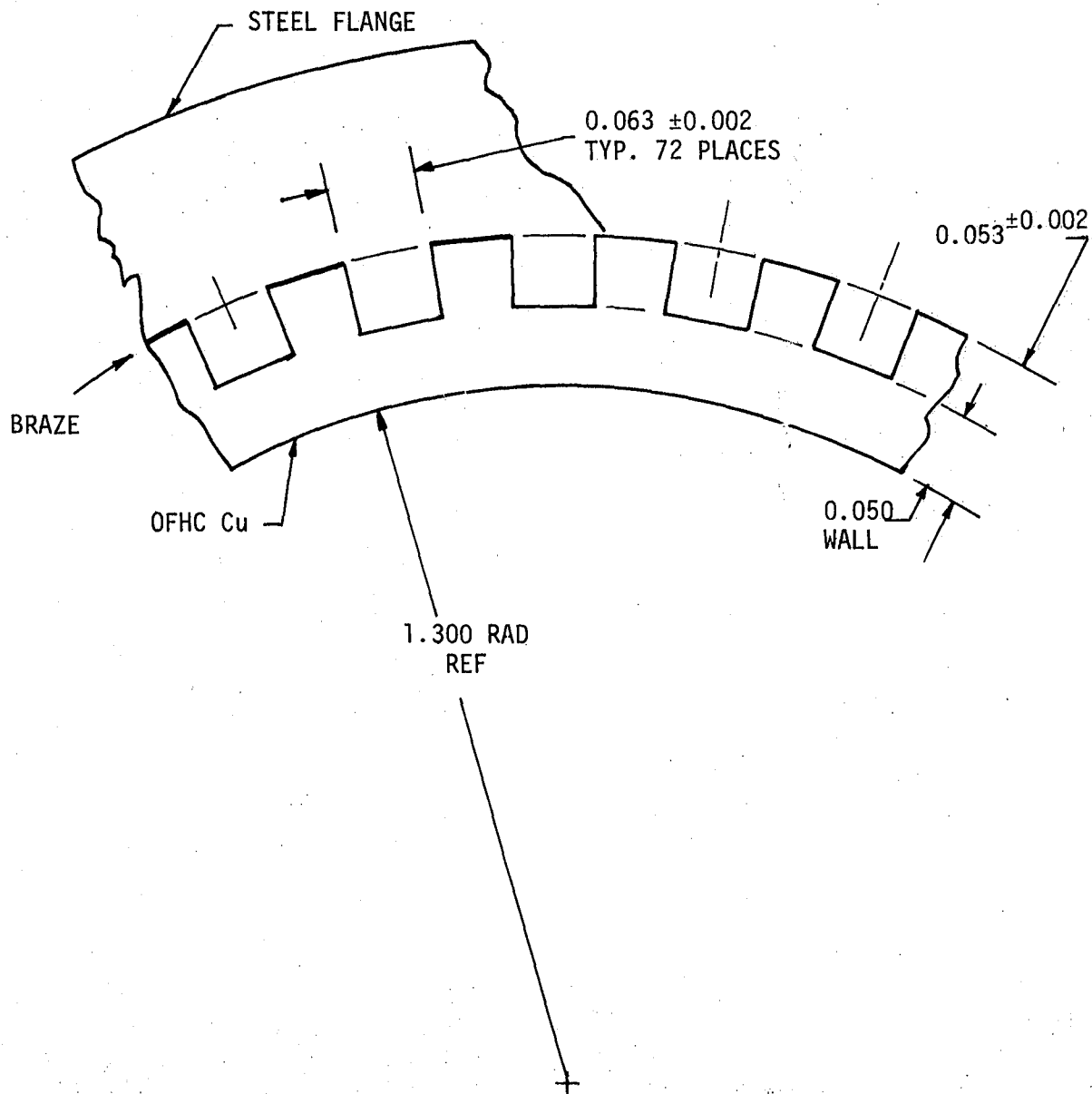


Figure 18. Regen Chamber Passages

### III, B, Task I - Analysis and Preliminary Design (cont.)

#### (3) Two-Dimensional Conduction Analysis

Results of a two-dimensional thermal analysis at the upstream ( $X = 0.5$  in.) and downstream ( $X = 0.0$  in.) junctions of the platelet stack assembly and regenerative sections are shown on Figures 19 and 20. It should be noted that a significant "temperature spike" had been expected to exist at these junctions hence the two-dimensional thermal analysis (which does not include any downstream film cooling effects) was conducted.

The maximum calculated wall temperature at  $X = -0.5$  in. was  $955^{\circ}\text{F}$  and the maximum wall temperature at  $X = 0.0$  in. was  $1134^{\circ}\text{F}$ . The surrounding material gas side wall temperatures in the regen sections at  $X = -0.5$  in. was  $676^{\circ}\text{F}$  and at  $X = 0.0$  in. was  $855^{\circ}\text{F}$  while the adjoining platelets were nominally  $900^{\circ}\text{F}$ . The less than approximately  $300^{\circ}\text{F}$  temperature difference, which is not a significant "spike", may be partially attributable to the use of the high thermal conductance OFHC copper material as opposed to steel for chamber construction.

#### b. Platelet Hydraulic Analysis

The platelet hydraulics analysis consists of three parts: (1) computer program modification, (2) metering platelet design, and (3) platelet stack design. The DELPW computer program used to design the ANTCAT transpiration cooled thrust chamber was modified to include low Mach number gaseous hydrogen as a transpiration coolant. Compressibility effects were accounted for by using the average density for each flow passage to calculate the individual pressure drops.

The metering platelet design was based on the design used for the ARES and ANTCAT chambers. The basic platelet configuration for the

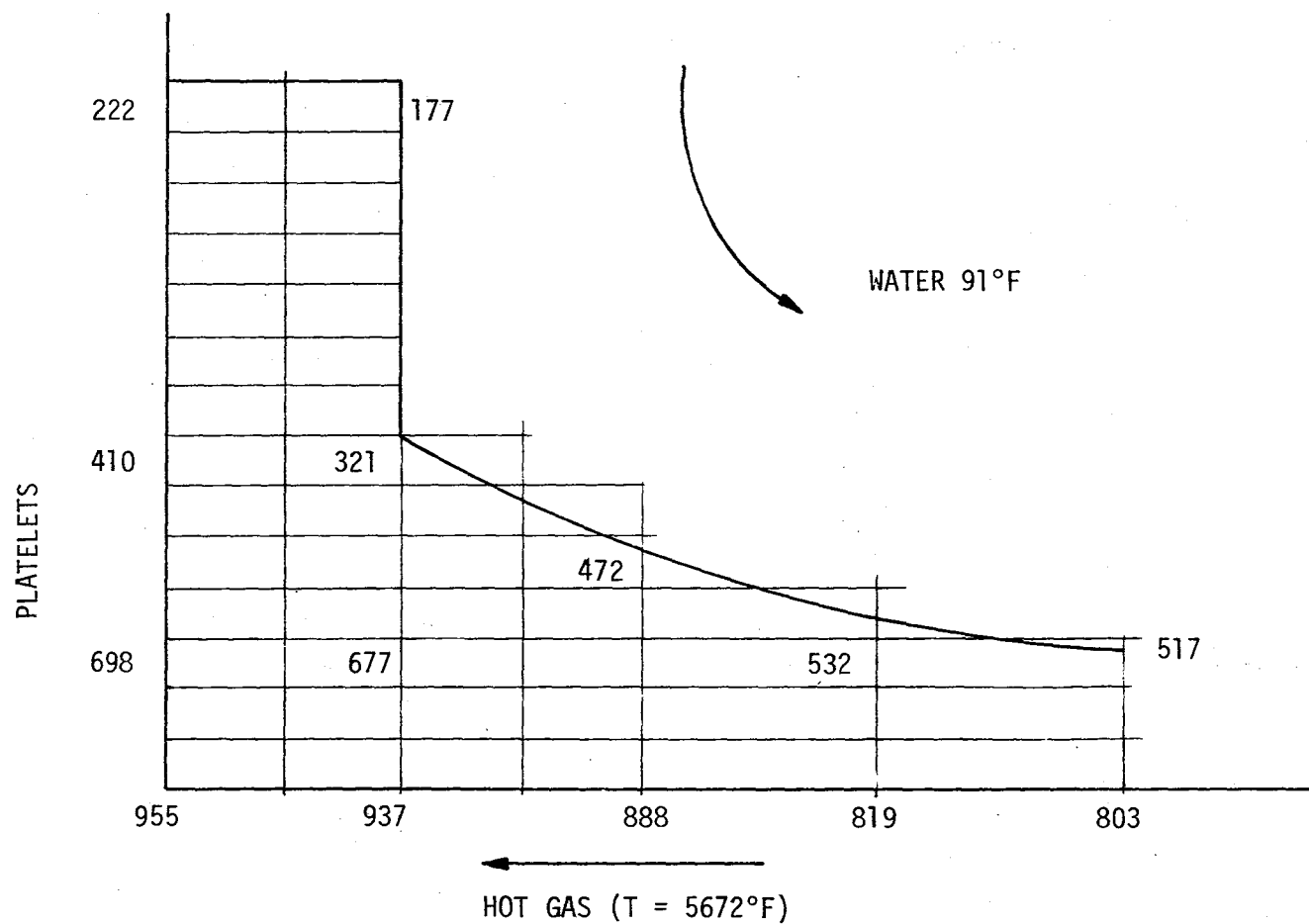


Figure 19. 2D Conduction Analysis Results for the Cooling Channel/  
Platelet Interface  $X = -0.5$  in.

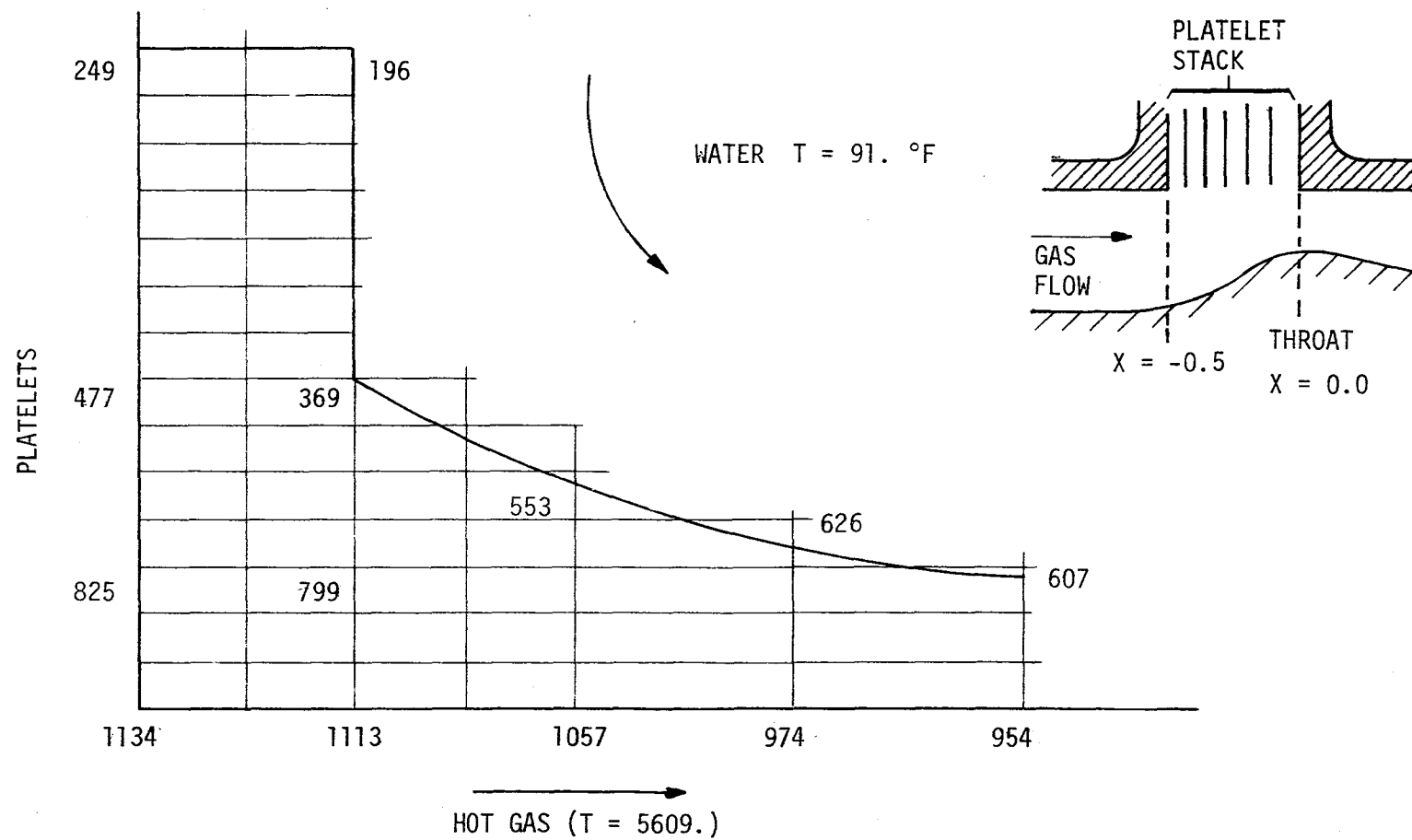


Figure 20. 2D Conduction Analysis Results for the Throat Cooling Channel/Platelet Interface  $X = 0.0$  in.



### III, B, Task I - Analysis and Preliminary Design (cont.)

transpiration-regenerative chamber is shown on Figure 21. The objective of the metering platelet design task was to establish a design capable of metering the desired coolant flow rate distribution indicated by the transpiration cooling analysis. To accomplish the desired metering the design included the following variables which could be changed from one platelet pair to the next: (1) primary metering channel width, (2) secondary metering length, (3) secondary metering channel width, and (4) primary metering channel length (clocking position).

Coolant passage hydraulic design and behavior was modeled with an existing hydraulic computer model which had been used to design transpiration-cooled devices and predict hydraulic behavior on the ANTCAT thrust chamber, Reference (4). The model was formulated for discrete pore injection and has been used to accurately predict flowrate over a wide range of Reynolds numbers.

The steady flow energy equation used for data correlations and flow predictions, which applies for both laminar and turbulent flow, is:

$$\dot{w} = A \left[ \left( \frac{2g\rho}{144} \Delta P \right) / (K_c + K_e + f \{ (L/D)_e + (L/D)_h \}) \right]^{1/2} \quad (7)$$

where:

- $\Delta P$  = total pressure loss, psi
- $g$  = gravitational constant 32.174 ft/sec<sup>2</sup>
- $\rho$  = fluid density lbm/ft<sup>3</sup>
- $\dot{w}$  = weight flowrate lbm/sec
- $A$  = channel cross sectional area, in.<sup>2</sup>
- $K_c$  = contraction loss coefficient
- $K_e$  = expansion loss coefficient
- $f$  = friction factor
- $(L/D)_e$  = equivalent length/diameter ratio for bends, tees, etc.

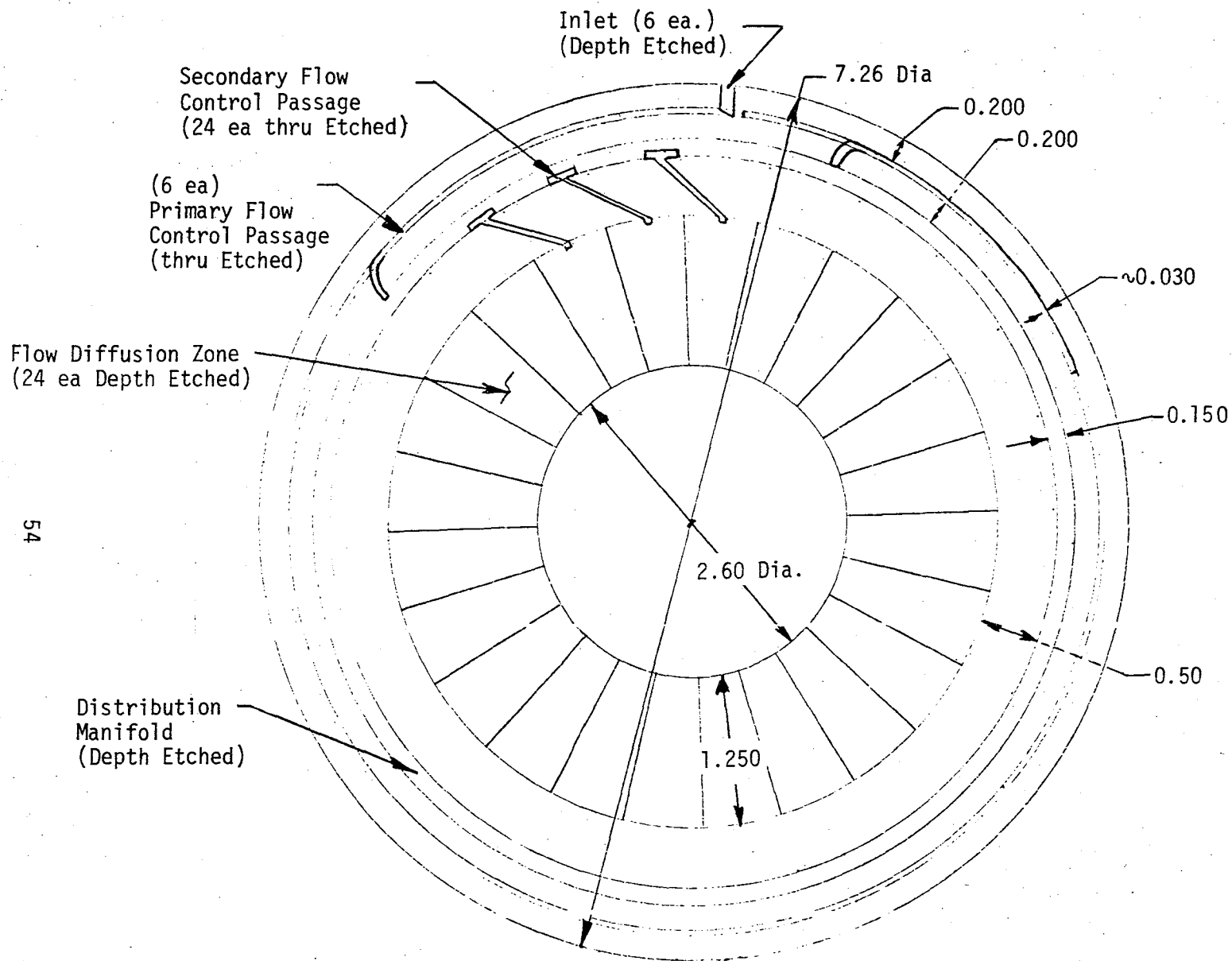


Figure 21. Superimposed Diffusion and Metering Platelet Configuration

### III, B, Task I - Analysis and Preliminary Design (cont.)

$(L/D_h)$  = channel length/hydraulic diameter

$D_h$  = hydraulic diameter =  $4A/\text{wetted perimeter}$

The friction factor correlation was defined for laminar flow in rectangular channels by curve fitting the data presented in Reference (8). The correlation thus obtained was:

$$f = (95.47 - 118.238\gamma + 127.95\gamma^2 - 48.73\gamma^3)/Re \quad (8)$$

where:

$\gamma$  = channel aspect ratio (height/width)

$Re$  = Reynolds number =  $\frac{\rho v D}{\mu} = \frac{\dot{w} D}{12 A \mu}$

$\mu$  = fluid viscosity, lb/in.-sec

$D$  = hydraulic diameter

$A$  = cross sectional area

For laminar flow in circular tubes, the Hagen-Poiseuille equation is used for friction factor definition. This equation reduces to the following familiar relationship:

$$f = 64/Re$$

For turbulent flow:

$$f = 0.316 Re^{-0.25} \text{ for } (2500 < Re < 30,000) \text{ from Blasius}$$

$$f = 0.184 Re^{-0.2} \text{ for } (Re > 30,000) \text{ from a simplification of the Karman-Nikuradse equation}$$

The turbulent friction factor does not differ significantly between tubes and rectangular channels, thus the above correlations are used for both.

Use of this computer program allows both laminar and turbulent flow metering to be evaluated and accurate predictions may be made

### III, B, Task I - Analysis and Preliminary Design (cont.)

for both heated and unheated coolant. Although the model was based on incompressible flow, minor modifications to the model allow consideration of the low Mach number compressible flow behavior expected in the proposed test hardware. The possibility of flow starvation due to coolant density changes was minimized by using the hydraulic and thermal models to properly locate metering passages and adequately size passages so that all gross coolant density changes occur in a low pressure drop zone near the chamber wall.

Results of the platelet design and hydraulic analyses are shown on Table IV. This shows dimensions of two metering platelet designs which are employed at the axial locations shown on Table V. In addition there are three instrumentation platelets, each 0.020 in. thick to accommodate 0.010 in. dia thermocouples, which are located at the forward, midpoint and aft end of the platelet assembly.

Mass flux as a function of axial location from the nozzle throat ( $X = 0.0$  in.) is shown on Figure 22 for the three platelet nominal wall temperature designs, 500°, 700° and 900°F respectively. Two curves for each temperature are shown marked actual and nominal. The 900°F wall temperature is used as the design point and thus the best correspondence between the actual and nominal curves are shown. The maximum difference (at  $X = -0.5$  in.) is less than 7.0 percent. As the platelet gas side wall temperature deviates from the design point the wall becomes progressively more overcooled and the fit between the actual and nominal curve degenerates. For the 500°F wall temperature at  $X = -0.5$  in., the actual mass flux is about 36% greater than the nominal mass flux.

Also shown on Figure 22 is a table that gives the supply pressures and the integrated total mass flow rates through the transpiration cooled platelet section for the three wall temperatures of 500°F, 700°F and

TABLE IV  
METERING PLATELET DESIGNS

	<u>Design No. 1</u>	<u>Design No. 2</u>
Number of Primary Channels	6	6
Width of Primary Channels	0.032	0.038
Length of Primary Channels	1.395	2.291
Number of Secondary Channels	24	24
Width of Secondary Channels	0.016	0.016
Length of Secondary Channels	0.750	0.750
Thickness of Platelet	0.004	0.004

Note: These dimensions do not include instrumentation platelets.

TABLE V  
METERING PLATELET LOCATIONS

<u>Axial Distance Range</u>	<u>Design No.</u>
0.00 to -0.048	2
-0.048 to -0.384	1
-0.384 to -0.504	2

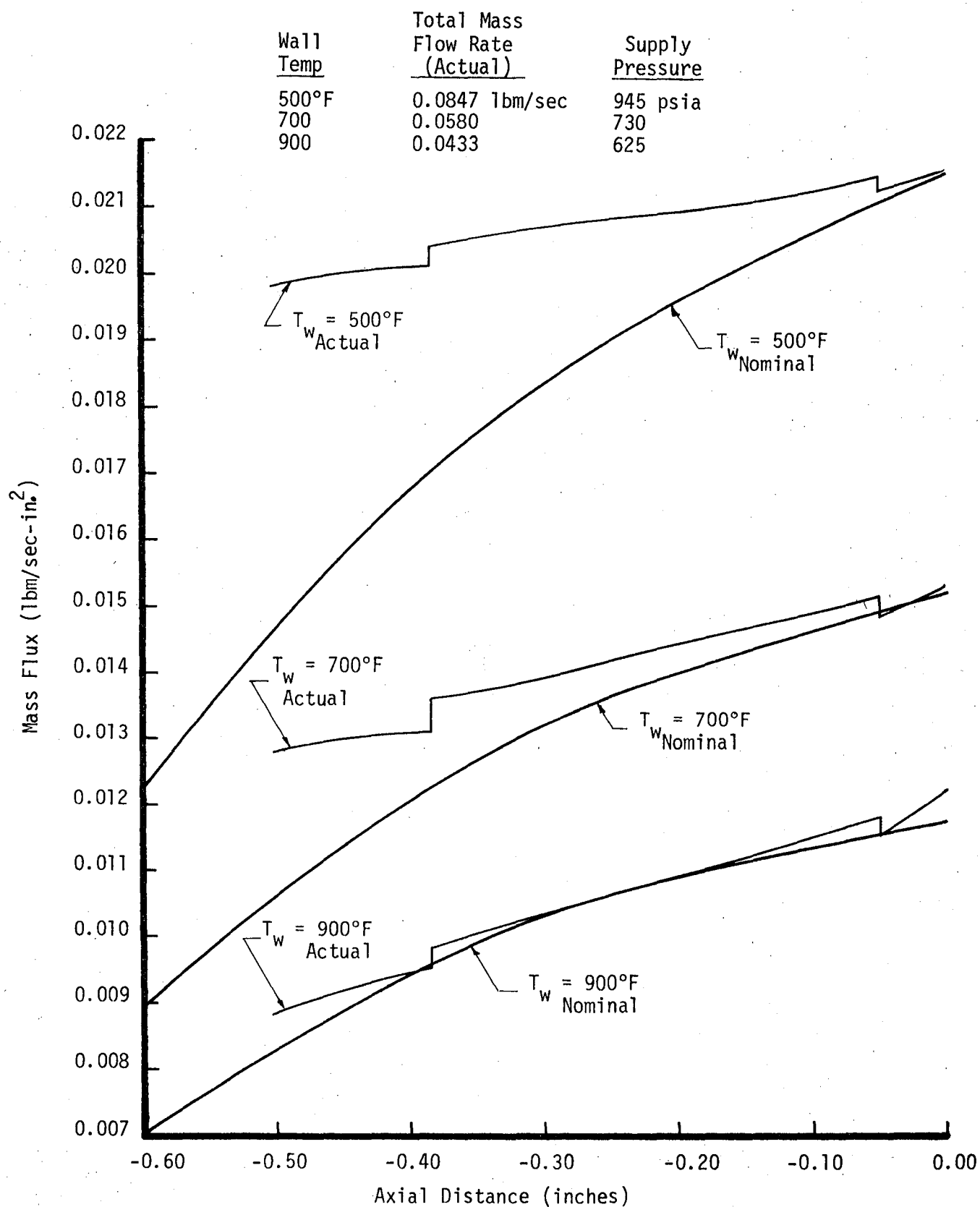


Figure 22. Coolant Mass Flux as a Function of Axial Distances from Throat

### III, B, Task I - Analysis and Preliminary Design (cont.)

900°F. The actual  $\text{GH}_2$  flow rate was varied through each platelet pair with axial station. Individual platelet pair (metering and diffuser) flow rates were plotted and are shown on Figure 23 as a function of axial distance for the three nominal wall temperature designs. The corresponding  $\text{GH}_2$  coolant outlet temperatures are shown on Figure 24.

#### c. Performance Loss Analysis

The engine performance loss due to transpiration cooling was estimated for this design. The loss due to coolant injection in the subsonic region was calculated using the HOC00L computer program using entrainment fractions measured on the Combustion Effects Program (Ref. 7). In one of the transpiration-regenerative configurations (trans-regen #1), transpiration coolant was injected in the subsonic nozzle region. The performance loss for this subsonic region coolant was calculated using the method of Stromsta and Husack.

There are two possible approaches for predicting the performance loss due to transpiration coolant injection in a trans-regen chamber:

1. A simplified semi-empirical stream tube model, and
2. The JANNAF BLIMP J computer program.

The simplified stream tube model was proposed for this program because it was the most economical approach. This approach consists of combining two existing performance loss models: the entrainment stream tube performance loss model, Reference 7, developed with NASA-LeRC funding for film coolant injected in the subsonic regions and the supersonic injection region model developed by Stromsta and Hosack, Reference 9.

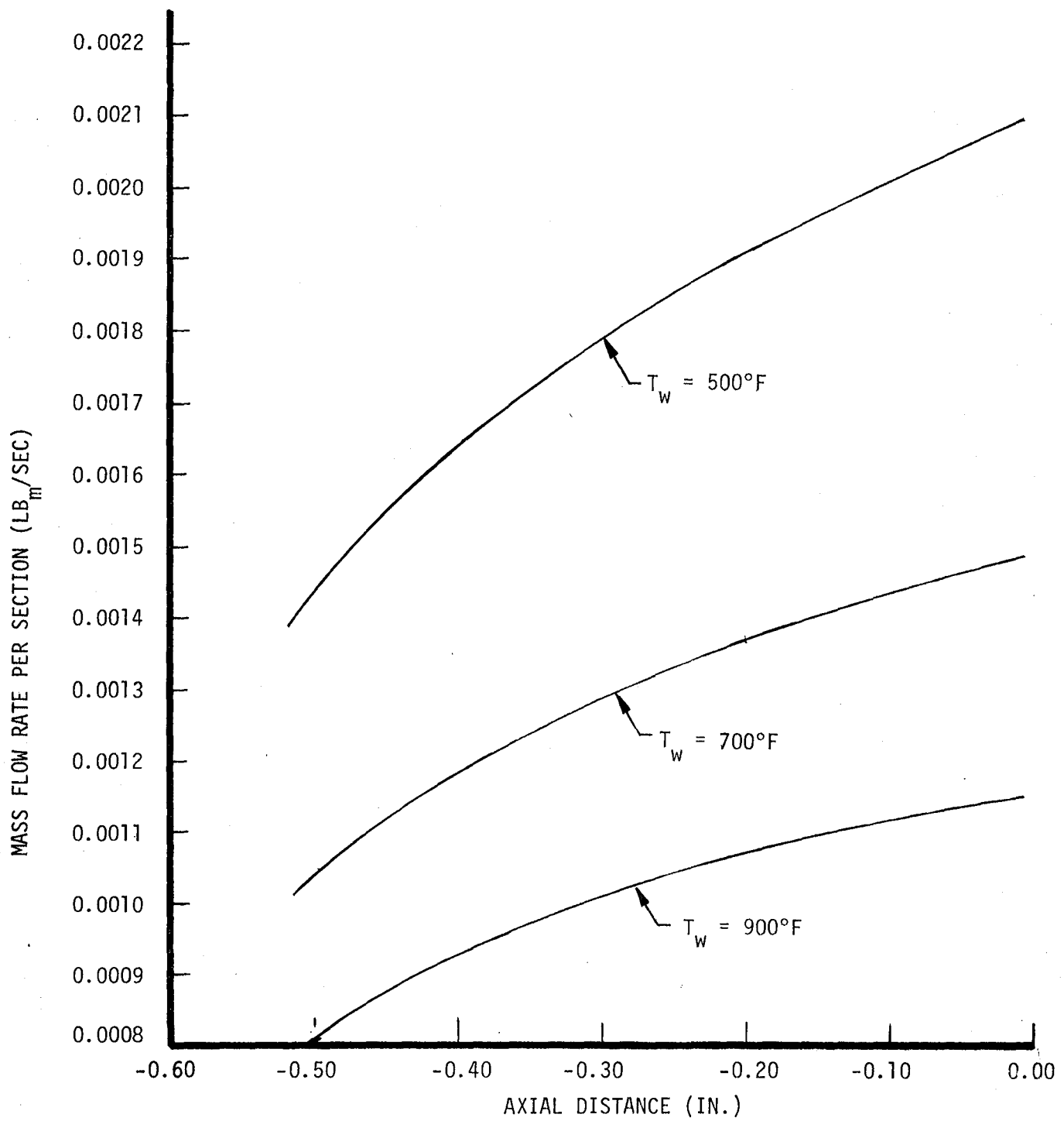


Figure 23. Flow Rate per Section vs Axial Distance



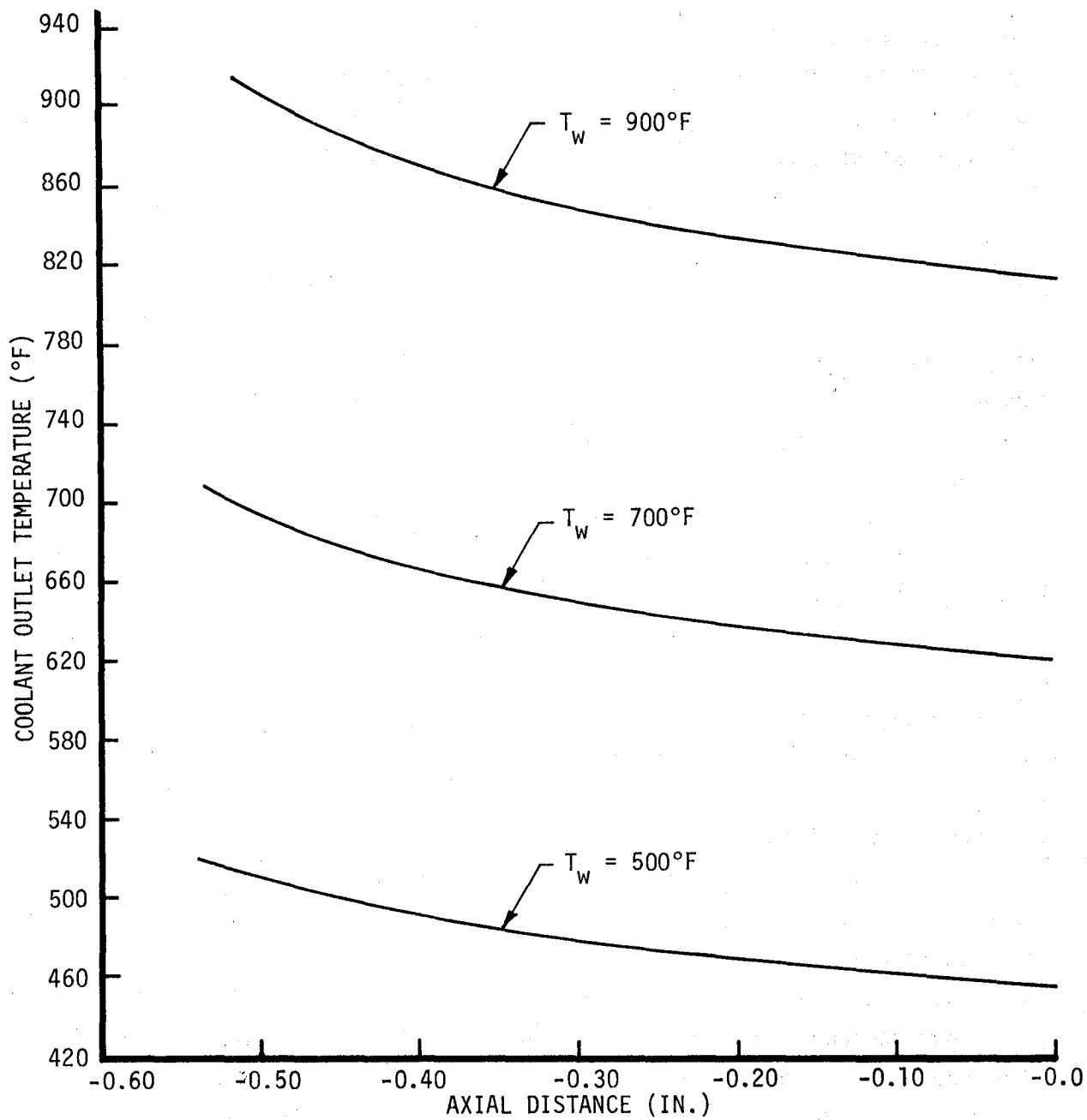


Figure 24. Predicted Coolant Outlet Temperature vs Axial Distance

### III, B, Task I - Analysis and Preliminary Design (cont.)

The entrainment model is contained within the HOCOOL computer program which is in the ALRC library of computer programs. It is characterized by an entrainment fraction which controls the rate of coolant/core gas mixing. Since the model was designed for film cooled chambers, all of the coolant is assumed to be injected at one discrete axial location. The entrainment model is applied to the trans-regen chamber design by taking the midpoint of the subsonic transpiration section as the effective injection point.

The supersonic region model was developed for subsonic injection of coolant through porous mesh into the supersonic flow region of a rocket nozzle. The model was greatly simplified by assuming: (1) the effects of turbulent mixing between the primary and secondary streams are negligible, (2) the presence of the secondary (coolant) flow does not affect the primary stream performance loss factors, and (3) the wall static pressure is unaffected by the secondary flow. For this program, these assumptions appear reasonable in view of the small amount of coolant flow injected at the nozzle throat.

Transpiration cooling performance losses were calculated using the HOCOOL program (Ref. 7). These runs initially used an assumed entrained fraction, based on past experience, of 0.03. A plot of predicted performance loss ( $\Delta I_{sp}$ ) versus  $\text{GH}_2$  coolant to fuel flow ratio is shown on Figure 25. Superimposed on this figure are lines for the three platelet flow rate designs to obtain nominal wall temperatures of 900, 700 and 500°F. As can be seen, the calculated performance loss for the 900° wall is approximately 3 sec. This would represent a loss of less than 1% for a 2:1 expansion ratio nozzle with a theoretical vacuum specific impulse of approximately 350 lb<sub>f</sub>-sec/lbm. For a nozzle with an expansion ratio of 30:1,

ENTRAINMENT FRACTION = 0.03  
 NOTE: THEORETICAL  $I_{VAC} = 349.7 \text{ LB}_f\text{-SEC/LB}_m$   
 FOR  $\text{GH}_2/\text{LOX}$  MIXTURE RATIO = 6.  
 & NOZZLE EXPANSION RATIO  $\approx 2:1$

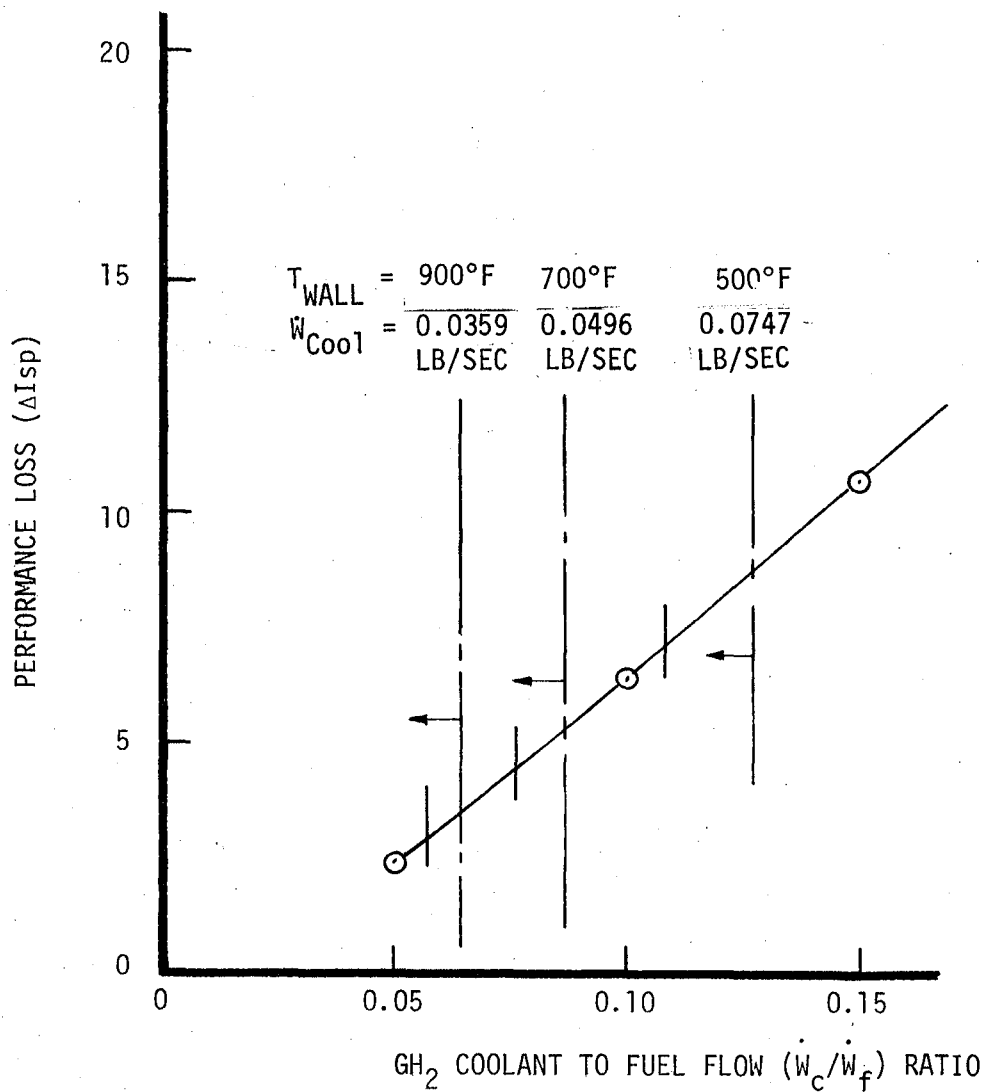


Figure 25. Cooling Performance Loss for Trans-Regen Chamber

### III, B, Task I - Analysis and Preliminary Design (cont.)

vacuum  $I_{sp}$  would be approximately 454 lbf-sec/lbm and the transpiration cooling performance loss would be less than 1% (0.77%) for the nominal 900°F cooled wall.

#### 3. Preliminary Design Review

A Preliminary Design Review (PDR) was held at ALRC on 2 December 1977 in which the drawings and supporting analyses were reviewed prior to finalization for shipment to the NASA project manager. Several useful suggestions resulted. Foremost of these was a recommendation to prepare a copper platelet stack sample for material handling familiarization and to demonstrate machining and electro-polishing technique feasibility, using thin copper platelet materials. These fabrication experiments were accomplished prior to the actual fabrication of the platelet stack in order to assure a high probability for manufacturing success.

The transpiration cooled test section is fabricated by stacking and clamping together etched platelets made from 0.004 and 0.008 inch thick OFHC copper material. In order to provide the porous stack internal diameter required, the platelet stack ID is match machined to the regen section diameter, then the surface is electro-polished to open up the passages.

#### C. TASK II - DETAIL DESIGN

##### 1. Objective

The purpose of this task was to develop the Trans-Regen chamber and platelet design details.

### III, C, Task II - Detail Design (cont.)

#### 2. Detail Design

It had been previously determined that the required variation of GH<sub>2</sub> mass flux could be accomplished with two platelet designs differing only in the primary channel widths and lengths used. The graph used to choose the precise channel dimensions is shown in Figure 26, which shows a grid of flow rate vs pressure drop for various platelet designs. Superimposed is the desired flow rate and pressure drop. As can be seen, the desired curve is essentially duplicated by two primary designs over a pressure drop range of 150 - 250 psi. Hence primary channel design dimensions in inches were chosen as 0.032/1.395 and 0.038/2.291 for width and length respectively for metering platelet designs 1 and 2.

Instrumentation platelets are used at three axial positions within the stack assembly, forward at the center and the downstream face ending at the nozzle throat. These correspond to axial distances (inches) of -0.5, -0.25 and 0.0 respectively. Each instrumentation platelet contains four gas side thermocouples and one metering zone thermocouple to verify the calculated thermal penetration pattern. Metal sheathed chromel-alumel thermocouples were used capable of accurate temperature measurement up to 2400°F. The smallest commercially available T.C.'s however are approximately 0.010 in. O.D. necessitating that an instrumentation platelet thickness of 0.020 in. to accommodate TC's as well as metering and diffusion channels. Figure 27 shows the instrumentation platelet details. Since these platelets have a larger gas side heated area they require commensurately larger metering flow areas to accommodate the higher GH<sub>2</sub> flow.

#### Platelet Radial Deflection

Concern was expressed regarding losses from boundary layer tripping because of differential thermal expansion of the copper platelet

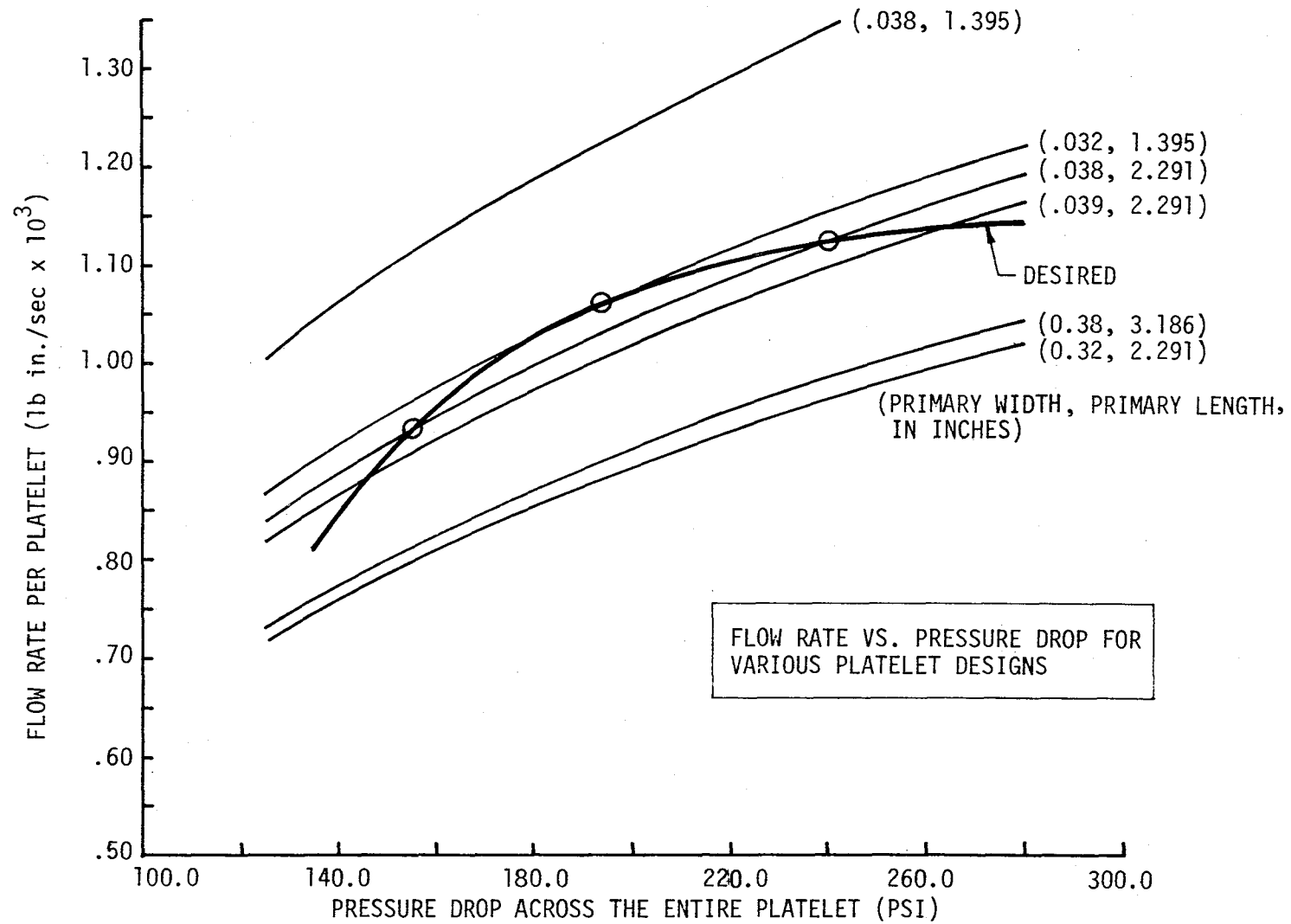


Figure 26. Primary Channel Flow Grid

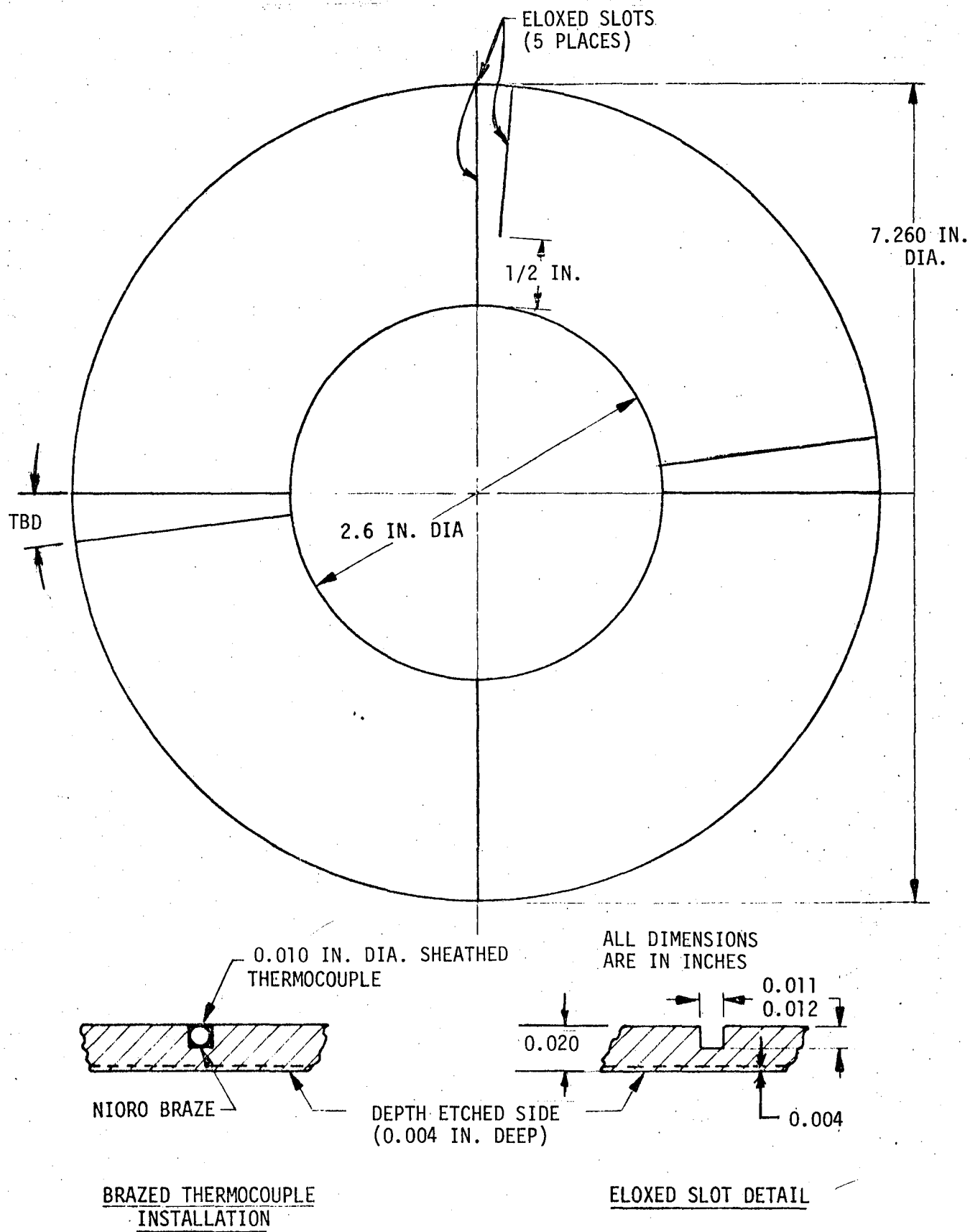


Figure 27. Instrumentation Platelet Details

### III, C, Task II - Detail Design (cont.)

stack resulting in separation and increased heat transfer. A differential thermal expansion analysis was conducted to determine radial deflection of the platelet stack in the thrust chamber assembly. The stack is sandwiched between steel closures containing the fore and aft regen sections and pinned together near its O.D. The pins are secured to the aft steel closure restraining the stack from outward (away from centerline) thermal growth. Calculated thermal gradients through the platelets at the design point (900°F wall temperature) were used in an axisymmetric finite element computer program that allows the use of nonlinear material properties (AB5U). The maximum thermal expansion calculated resulted in the stack closing on its internal radius approximately 0.0058 in. This is the same order of magnitude as the value assumed for the porous plate assembly surface roughness in the heat transfer calculations (thermal enhancement). Hence an additional boundary layer heating analysis was not necessary.

Artwork for the copper platelets to be used on the fabrication experiment was prepared. A fixture for electropolishing was designed and fabricated and platelet etching has been started. The purpose of this experiment was to demonstrate finish machining and use of the electropolishing technique to remove machining burrs on the copper platelet stack I.D.

A thermal and fluid dynamics report has been prepared to summarize the analyses of the transpiration cooled section of the thrust chamber. These data have been presented in several of the previous monthly reports. A copy of this report together with a set of detail drawings was forwarded to the NASA-LeRC program manager for review prior to the CDR.

In order to measure the bulk temperature rise of the water in the aft regen chamber it is preferable to take the measurement after reasonable



### III, C, Task II - Detail Design (cont.)

mixing of the water emerging from the channels through upcomer tubes has occurred; i.e., in the manifold or downstream. This analysis was conducted to determine the error involved in measuring coolant temperature at the entrance of the crossover tube instead of inside the manifold at the exit of the aft regen section. The advantages of measuring the bulk temperature at this location include easy placement of the thermocouple and assurance that the fluid is more thoroughly mixed. Heat loss from the fluid to the surrounding hardware was calculated to be 14.2 Btu/sec resulting in a 1.6°F temperature decrease. The analysis assumed a constant inlet fluid temperature of 91°F and a constant wall temperature of 70°F. This assumption of a constant wall temperature is conservative, actual measurement error should be somewhat less than 1.6°F.

An analysis was conducted to determine the pressure drop in the distribution platelet between the primary and secondary metering channels. This channel has been blocked off in six sections to provide the metering with more isolation in the circumferential direction. In the instrumentation platelets, which use a 0.500 in. long primary channel, coolant has to travel further than in the other platelets that take into account the pressure drop in the intermediate channel. Instrumentation platelets with the 0.500 in. long primary channel require the fluid to travel the extra distance between inlets of adjacent secondary channels resulting in the increased pressure drop. This additional pressure drop has been calculated to be less than 9 psi for the worst case of the 900°F wall. This is less than 3% of the total pressure drop in the platelet and was not considered to be excessive.

### 3. Critical Design Review

The trans-regen program CDR was held at NASA-LeRC, Cleveland on 8 Feb. 1978. The program status was summarized and the detail designs of the

### III, C, Task II - Detail Design (cont.)

platelet stack and regen channels and their assemblies were presented along with the analytical backup material.

The remaining program work was described using the program schedule and milestone chart and the test program sequence described in the program work plan. There were several comments and recommendations which are summarized below.

1. Use of an uncoated water cooled centerbody (NASA-GFE) was recommended in lieu of the  $ZrO_2$  coated plug supplied. This was recommended since the coating could "spall-off" during testing changing the geometric throat area. An uncoated plug was shipped from NASA and received at the ALRC physics lab.

2. NASA had on hand and supplied .375 dia, high strength A-286 stainless steel bolts of the required lengths. A box containing 18 ea, EWB0420-6H-74 x 5.3 in. long and 2 ea, EWB0420-6H-48 x 3.6 in. long bolts with matching A-286 nuts were supplied for use on this program. The assembly drawing B/M has been changed to reflect use of this hardware.

3. Thermal instrumentation will be located along the Trans-Regen chamber to avoid effects of two  $P_c$  taps approximately  $180^\circ$  apart located in the outer row of the GFE injector. NASA's experience with this injector showed that the  $P_c$  taps resulted in a downstream cold streak. Thermocouple locations were verified by layout which showed their centerline radial locations were approximately half way between  $P_c$  ports.

4. The use of copper (OFHC) material for the platelets in this program were questioned. This was verified to be the most coolant efficient material to reflect their (NASA's) future mission requirements for high heat

### III, C, Task II - Detail Design (cont.)

flux. The coolant mass flux vs gas side wall temperature was calculated to cool the throat station using three platelet materials, OFHC copper, Nickel 200 (or 201) and type 347 stainless steel.

Two sets of curves were determined for two heat flux rates of 35 Btu/in.<sup>2</sup>-sec (this program) and 70 Btu/in.<sup>2</sup>-sec (future high  $P_c$  program requirement). These are shown on Figure 28. It can be seen that for the lower heat flux rate (35 Btu/in.<sup>2</sup>-sec), copper platelets at a gas side wall temperature of 900°F would require approximately the same coolant mass flux as Nickel at 1500°F and considerably less than stainless steel at 1800°F. At the higher (future requirement) heat flux (70 Btu/in.<sup>2</sup>-sec), copper platelets were shown to be the most coolant efficient, requiring less coolant mass flux than either the Nickel or Stainless platelet materials at their higher operating temperatures.

### D. TASK III - FABRICATION AND COLD FLOW TESTING

#### 1. Objective

The purpose of this task was to fabricate, assemble and flow test the Trans-Regen chamber. Photos of the completed forward and aft regen chamber sections are shown in Figures 39 and 40.

#### 2. Fabrication

A fabrication experiment was conducted to investigate the use of the electropolishing technique to remove machining burrs and open the OFHC copper platelet passages closed during the finish machine operation. The finish machining operation is required to match machine platelet stack I.D. to regen chamber I.D.

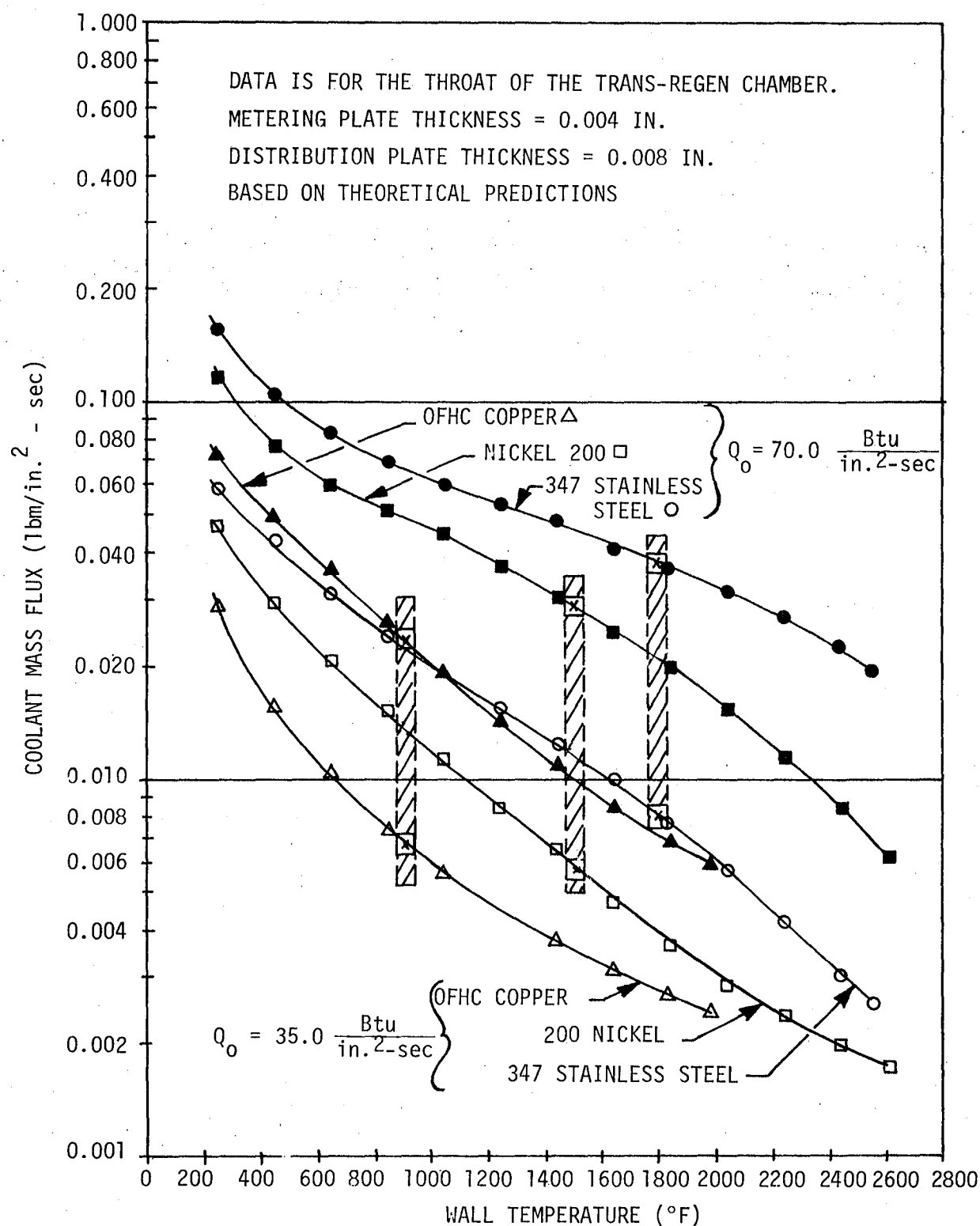


Figure 28. Coolant Mass Flux as a Function of Wall Temperature for Various Platelet Materials

### III, D, Task III - Fabrication and Cold Flow Testing (cont.)

A short stack of platelets (5 diffusion and 5 metering) were prepared and mounted (pinned) between two heavy stainless steel plates and the I.D. machined on a lathe. For the first attempt, depth of cut and forward feed speed used were too large which tended to deform the copper around the diffusion platelet openings. Subsequent attempts reduced machine feed and speed to avoid material deformation.

After machining, the shipment was assembled for electropolishing. The assembly used is shown on Figure 29, a cyanide solution was used as the electrolyte. Platelets were left in the electrolyte solution longer than necessary. This assured that all machining burrs were removed and material removed from the diffuser platelet openings. However, in so doing, individual platelet edges were rounded more than expected. After electropolish was complete electrolyte drained, and the assembly rinsed with deionized water; a photomicrograph was taken at 22 times magnification. This is shown on Figure 30. As may be seen, the rounded edges give the diffuser channel outlets a "bellmouth" appearance; this will not adversely affect  $\text{GH}_2$  flow. The measured surface roughness across lands of the diffusion and metering platelet stack was  $\text{RMS} = 12$ , using precision "Taly-Surf" measurement equipment.

#### 3. Heat Transfer Correction

A correction was made to the blockage computer program, used to calculate coolant mass flux requirements, reducing the required coolant flow vs wall temperature curve. This changed curve is shown at the throat station,  $x = 0$ , on Figure 31, together with the previous results. This smaller flow necessitated reducing the primary channel widths (in inches) of the two metering platelet designs from .032 to .026 and .038 to .030.

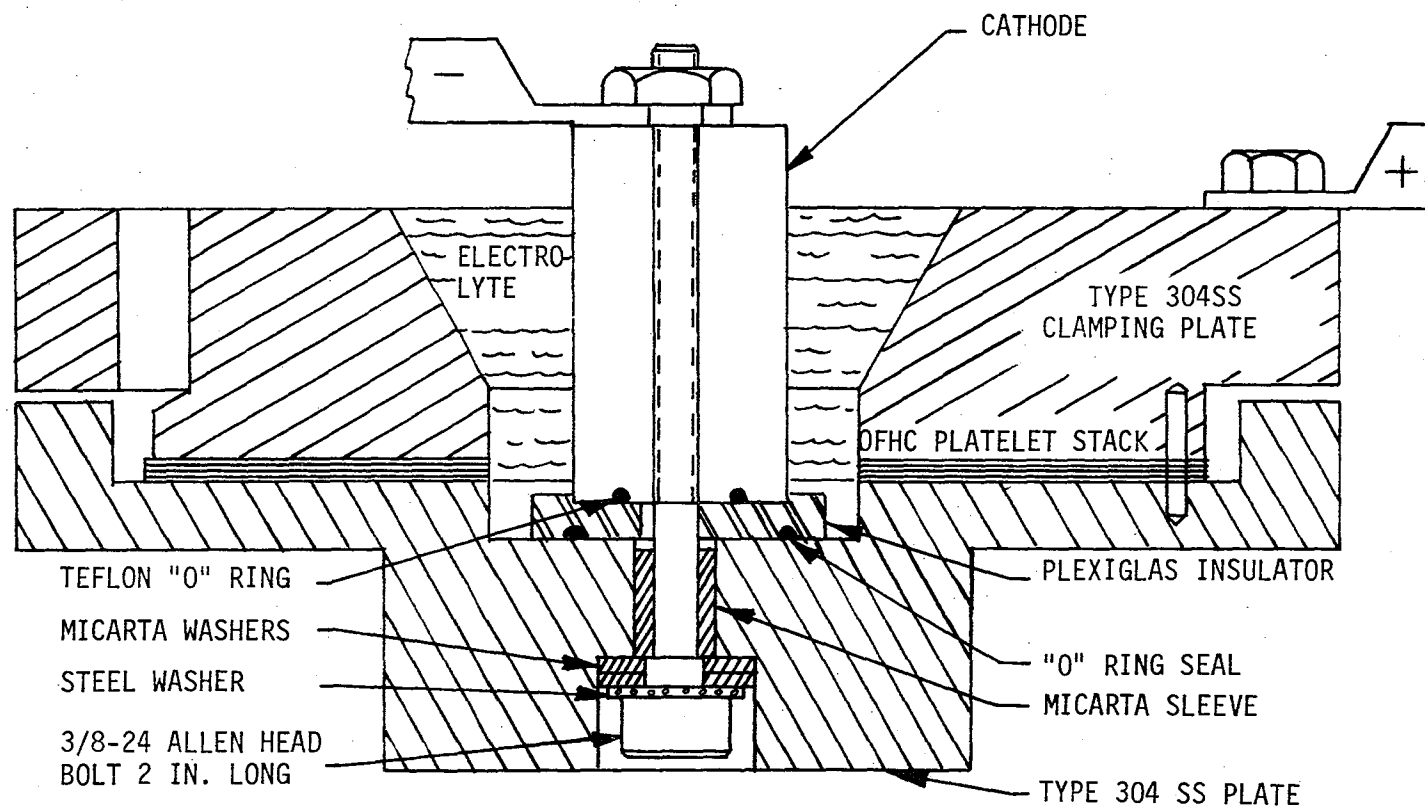


Figure 29. Electropolish Setup

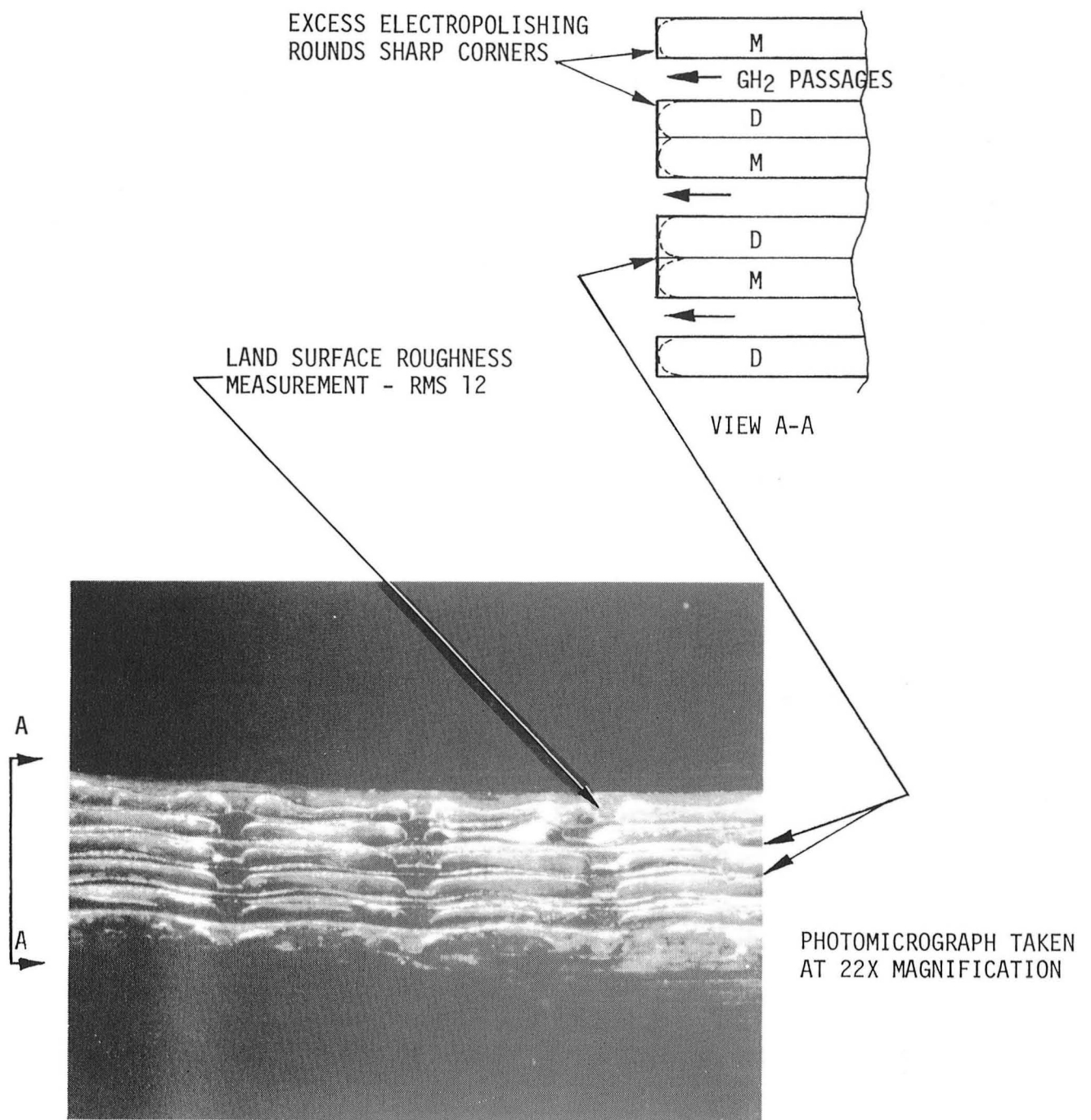


Figure 30. OFHC Platelet Stack Electropolish Experiment

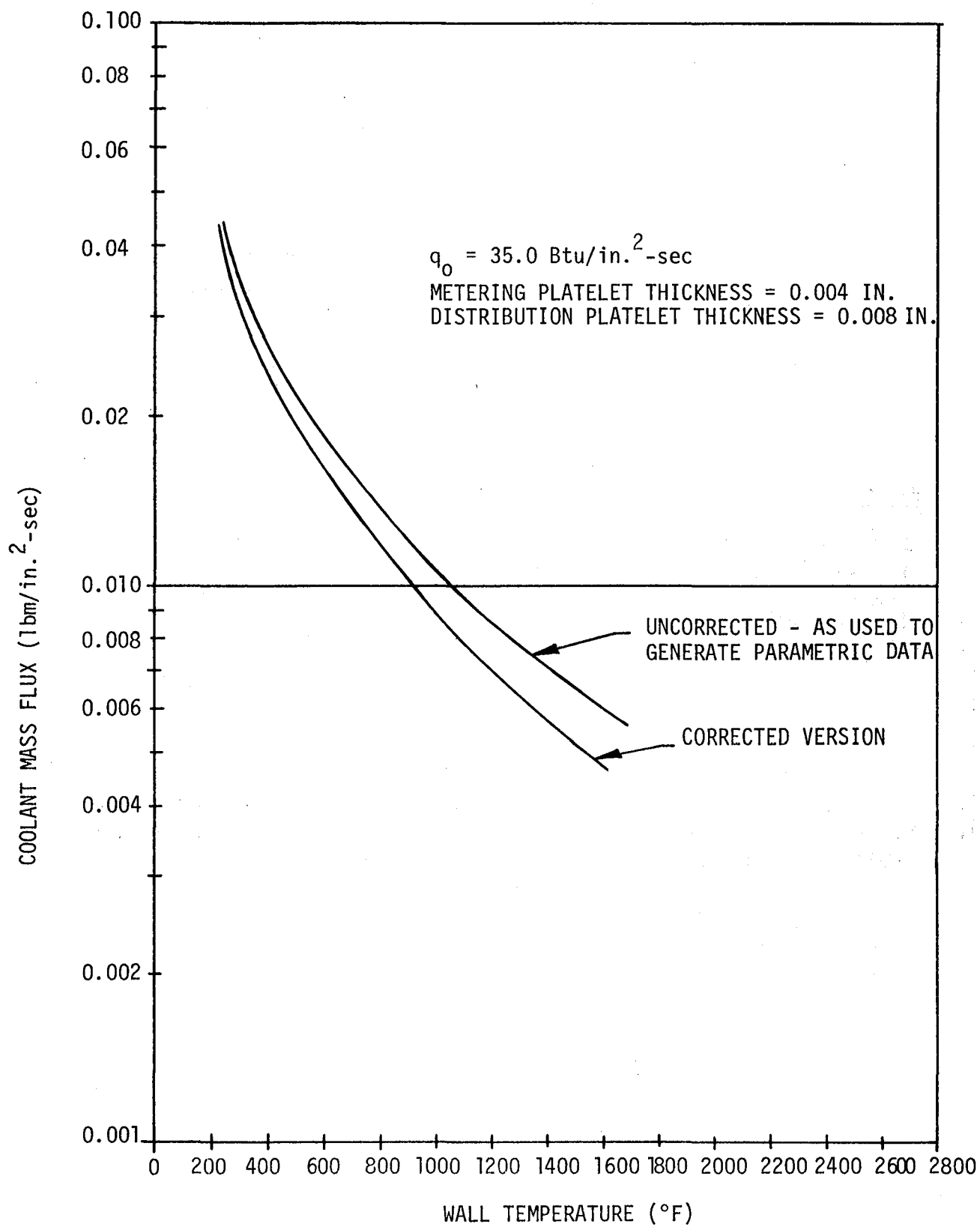


Figure 31. Comparison of Coolant Requirements from the Corrected and Uncorrected Blockage Programs



### III, D, Task III - Fabrication and Cold Flow Testing (cont.)

Revised metering channel flow rates are shown in Table VI for the instrumentation platelets. Channel dimensions and stacking sequence are shown on Tables VII and VIII for the metering platelet designs 1 and 2.

The desirable mass flow rates for the instrumentation platelets were based on calculations of platelet wall temperature for various flow rates. Wall temperature calculations are essentially two-dimensional heat transfer problems. However, upper and lower bounds on the true wall temperature may be obtained by performing two one-dimensional analyses. The first provides the lower bound by assuming that the coolant flow out of each platelet cools only the section downstream of the outlet. The second analysis provides the upper bound by assuming that the mass flow rate from each platelet is split equally between the sections upstream and downstream of the outlet.

The results of these two analyses for the nominal 900°F wall are shown in Table IX.  $T_{w,des}$  is the actual wall temperature of the platelets surrounding each instrumentation platelet and  $T_{w,ave}$  is the arithmetic average of the upper and lower bounds on the wall temperature. It can be seen that the desired wall temperatures at each of the three locations lie within the temperature bounds as calculated above.

Actual and nominally required mass flux values for the revised metering platelet dimensions are compared on Figure 32 for nominal wall temperatures of 500, 700 and 900°F. It can be seen that at the design condition, i.e., the 900°F wall, mass flux values are closely matched.

These same metering platelet dimensions, however, will result in higher than required mass flux which will give successively more overcooling for the 700 and 500°F nominal wall temperature curves. The supply pressures

TABLE VI  
INSTRUMENTATION PLATELET METERING DESIGN

<u>Axial Dist.</u>	<u>Platelet Thickness</u>	<u>Primary Width</u>	<u>Primary Length</u>	<u>Actual Flow Rate</u>	<u>Desired Flow Rate</u>	<u>Error</u>
0.00 in.	0.004 in.	0.090 in.	1.395 in.	.002959 lbm/sec	.002811 lbm/sec	5.27%
-0.25 in.	0.004 in.	0.090 in.	1.395 in.	.002516 lbm/sec	.002376 lbm/sec	5.89%
-0.50 in.	0.004 in.	0.090 in.	2.291 in.	.001904 lbm/sec	.001900 lbm/sec	0.21%

TABLE VII  
FINAL PLATELET DESIGNS

	<u>Design No. 1</u>	<u>Design No. 2</u>
Number of Primary Channels	6	6
Width of Primary Channels, inches	0.026	0.030
Length of Primary Channels, inches	1.395	2.291
Number of Secondary Channels	24	24
Width of Secondary Channels, inches	0.016	0.016
Length of Secondary Channels, inches	0.750	0.750
Thickness of Platelet, inches	0.004	0.004

TABLE VIII

STACKING SEQUENCE OF PLATELETS

<u>Axial Distance</u>	<u>Design No.</u>	<u>Dwg No.</u>
0.000 to -0.427 in.	1	1188636-6
-0.427 to -0.500 in.	2	1188636-7

TABLE IX

INSTRUMENTATION PLATELET WALL TEMPERATURE BOUNDS

<u>x, inches</u>	<u>T<sub>w,des</sub></u>	<u>T<sub>w,min</sub></u>	<u>T<sub>w,max</sub></u>	<u>T<sub>w,ave</sub></u>
0.0	865°F	856°F	932°F	894°F
-0.25	900°F	889°F	976°F	933°F
-0.50	846°F	845°F	949°F	897°F

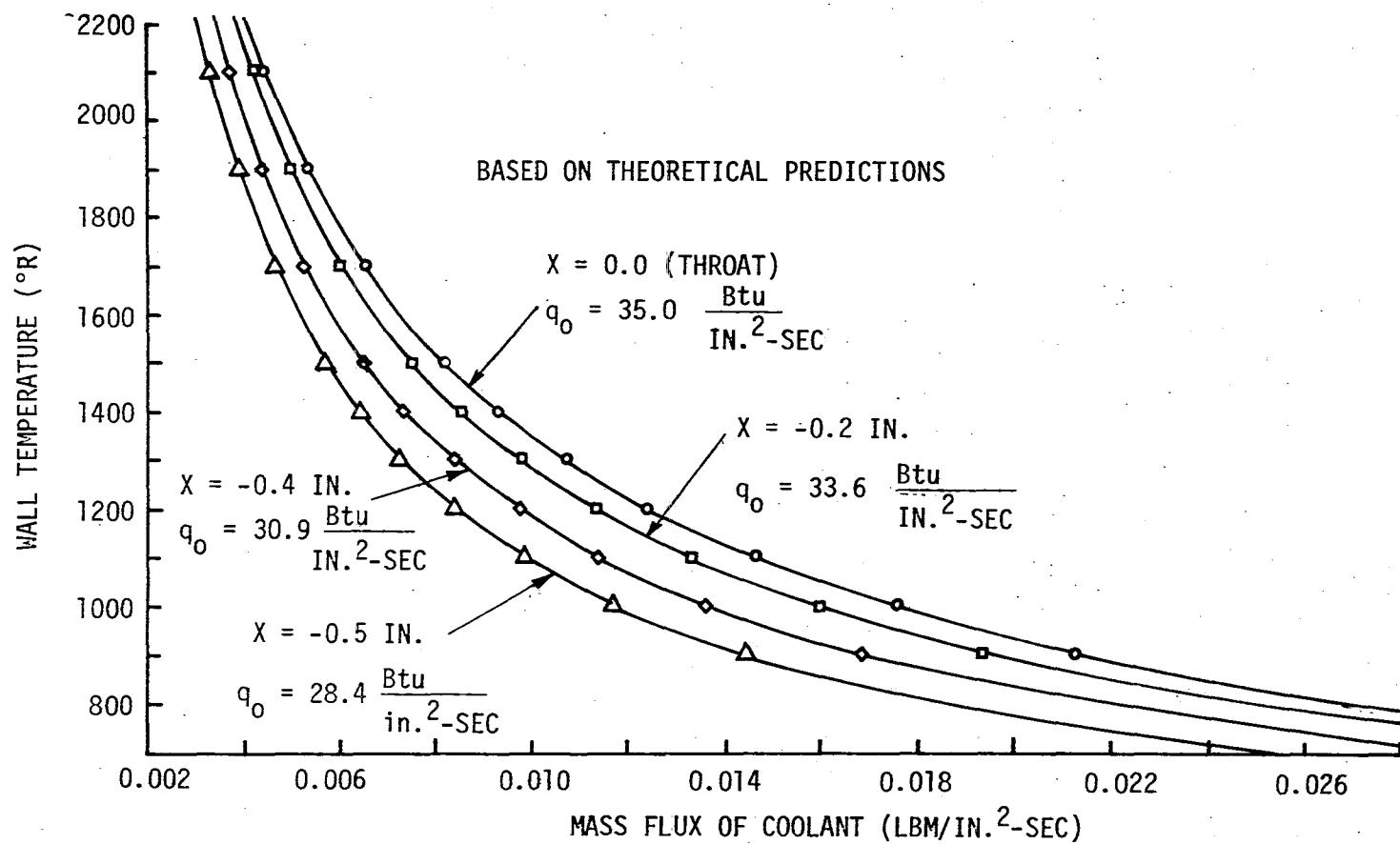


Figure 32. Revised Wall Temperature as a Function of Coolant Mass Flux

### III, D, Task III - Fabrication and Cold Flow Testing (cont.)

used and the total mass flow rates for the transpiration cooled section are shown in Table X.

Platelet wall temperature versus coolant mass flux were recalculated for various nozzle axial stations, i.e., at the throat and at  $X = -.2, -.4$  and  $-.5$  respectively. The curves are shown on Figure 32. A diffusion platelet is shown in Figure 33.

Transpiration coolant performance loss for the new (revised) flow rates were determined. The percent loss  $(\Delta I_s / I_{vac} \times 100)$  is plotted on Figure 34 versus the  $GH_2$  coolant to total fuel flow rate ratio for various expansion ratios. As can be seen, the performance loss is well below the program limit of 1% for the nominal hot side wall temperature test condition of  $900^\circ F$ . Note that  $\Delta I_s = (I_{baseline})_{vac} - (I_{trans-regen})_{vac}$  and  $(I_{baseline})_{vac}$  is simply denoted  $I_{vac}$ . Note also that the coolant ratio is a function total fuel flow, i.e.,  $\dot{w}_f = \dot{w}_{injector} + \dot{w}_{coolant}$ .

#### 4. Cold Flow Testing

The cylindrical regen chambers were water flow calibrated to determine flow rate versus pressure drop. The forward and aft chambers were flow tested separately, then assembled with the bypass connections, as shown on the 1188636 assembly, and water flow calibrated. This was followed by water flow calibrating the NASA-LeRC supplied cylindrical spool CF 622069 to assure its pressure drop characteristics were similar. The results are shown on log-log coordinates on Figure 35. As was expected on the longer channel length, the NASA regen spool had a higher  $\Delta P$  than either the forward or aft regen chamber but less than the equivalent length trans-regen assembly with the forward and aft chambers in series connected with the bypass tubing. The maximum water inlet pressure used on these tests was 1050 psi because of the facility pumping limits.

TABLE X

SUMMARY OF COOLANT SUPPLY PRESSURES AND MASS FLOW RATES

<u>Test No.</u>	<u>Wall Temperature</u>	<u>Supply Pressure</u>	<u>Total Mass Flow Rate</u>
5	500°F	996 psia	0.07466 lbm/sec
6	700°F	748 psia	0.04958 lbm/sec
7	900°F	627 psia	0.03587 lbm/sec

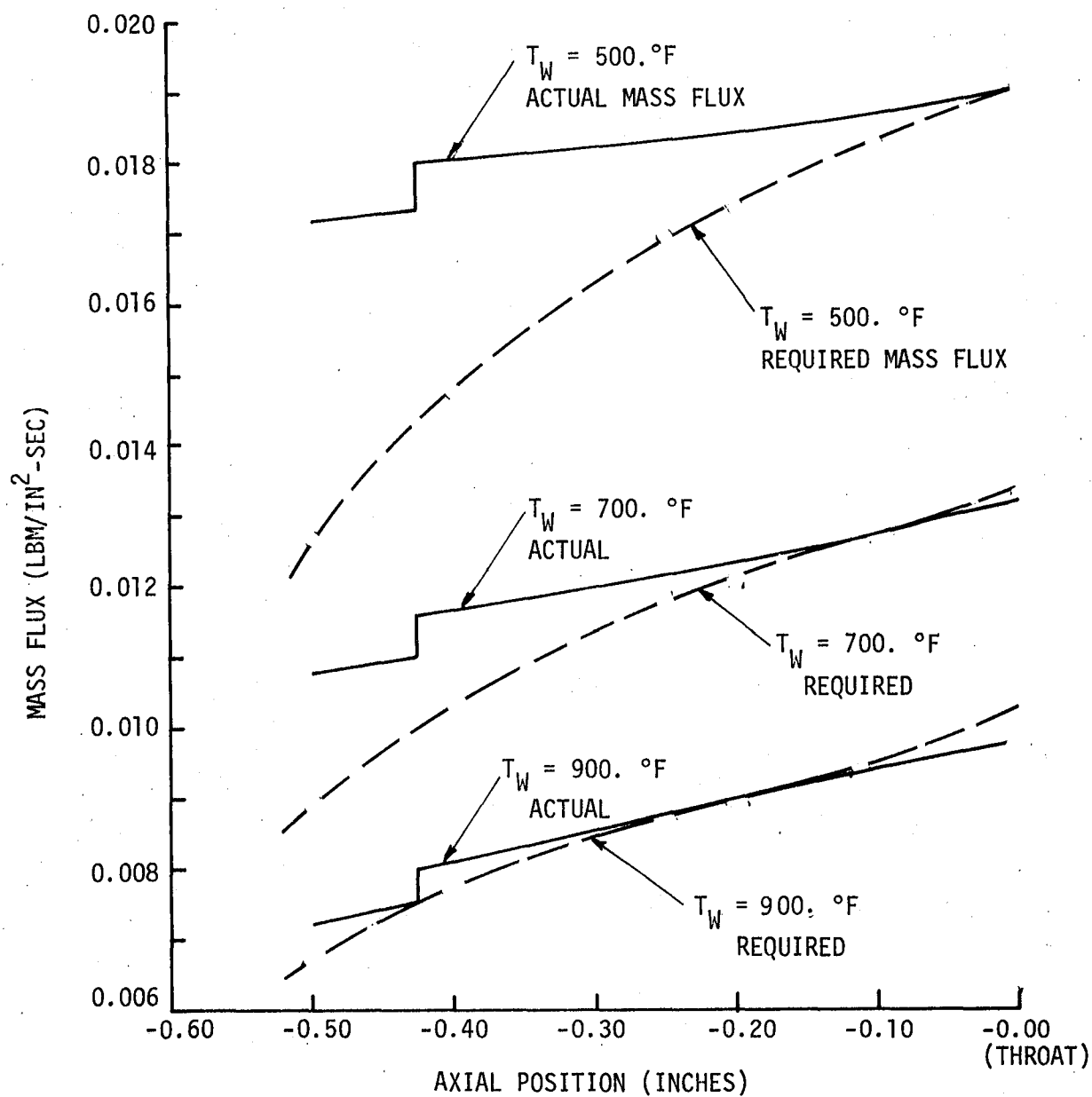


Figure 33. Coolant Mass Flux as a Function of Axial Position

ENTRAINMENT FRACTION = 0.03

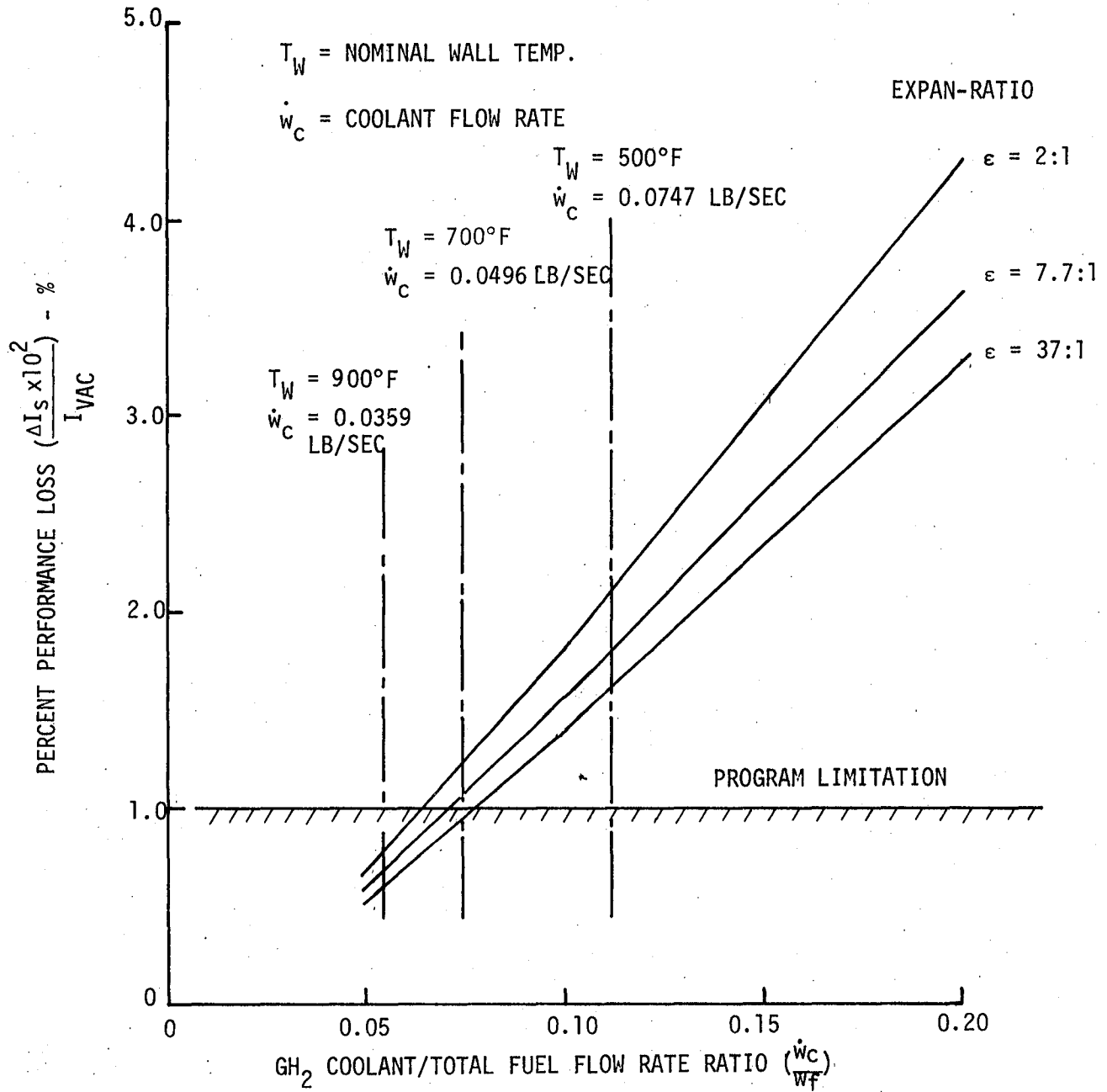


Figure 34. Revised Cooling Performance Loss



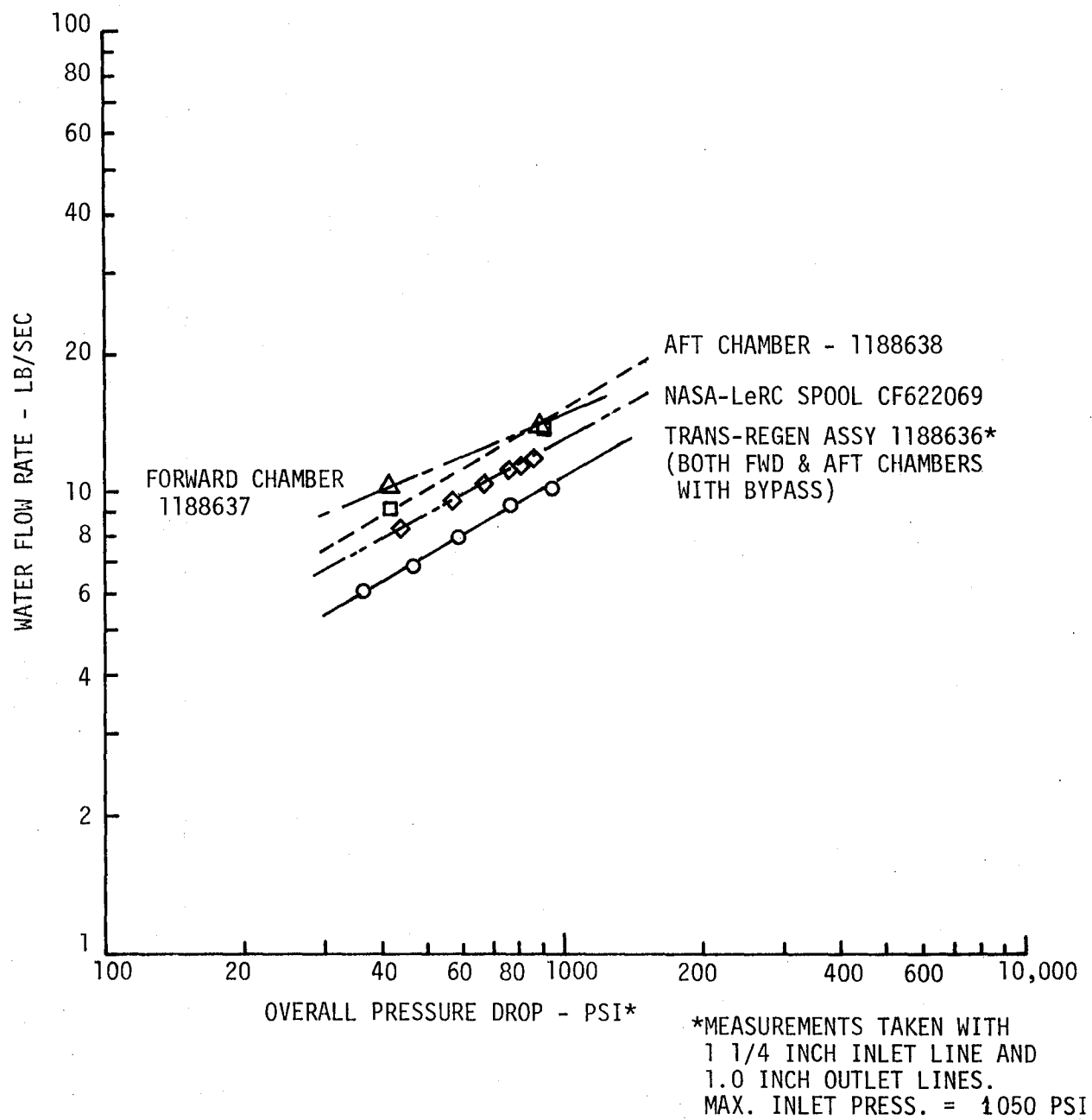


Figure 35. Regen Section Water Flow Calibration

### III, D, Task III - Fabrication and Cold Flow Testing (cont.)

During cold flow testing it was noted that several of the 10 mil dia thermocouples in the 1188639 instrumentation platelets had broken at the corner of the EDM slot. In addition, several others were inadequately staked into their slots and after brazing were protruding above the surface of the platelet. In order to dress these flat (below the slot surface) the metal sheath material of several thermocouples would be removed exposing the insulation and the T.C. wires. Since good intrawall temperature measurements are of extreme importance to this program it was decided to make new T.C.'s, rework the instrumentation platelets and modify the thermocouple installation by changing the braze from Nicro (Gold) to electroless nickel per sketch 2216-SEC-2 shown on Figure 36. This allowed plating of the T.C. sheath with electroless nickel prior to staking the T.C. in the slot, before brazing, and resulted in a much more satisfactory installation. In addition, since the heat penetration zone of the copper platelets has been shown to be within 0.5 inches from the I.D., the braze was confined to this zone and the slots (grooves) sealed for leakage at the O.D. with a free flowing cement. To avoid breaking the 10 mil diameter thermocouples by sharp bends such as resulted during handling and in shipping, the EDM slots were rounded at the platelet O.D. such that a minimum 10 T.C. dia bend radius on the T.C. wire would result.

The trans-regen chamber was assembled with the platelet stacking sequence as shown on drawing 1188636 sheet 2. To facilitate handling the three instrumented diffusion platelets (-2 and -3) were replaced by spare (-1) diffusion platelets for cold flow. These were replaced after completion of the cold flow testing prior to the hot fire tests.

In order to conduct the cold flow tests, seals were fabricated for the forward and aft end of the trans-regen assembly internal diameter. The aft end plug included a chamber pressure measurement tap and an orificed

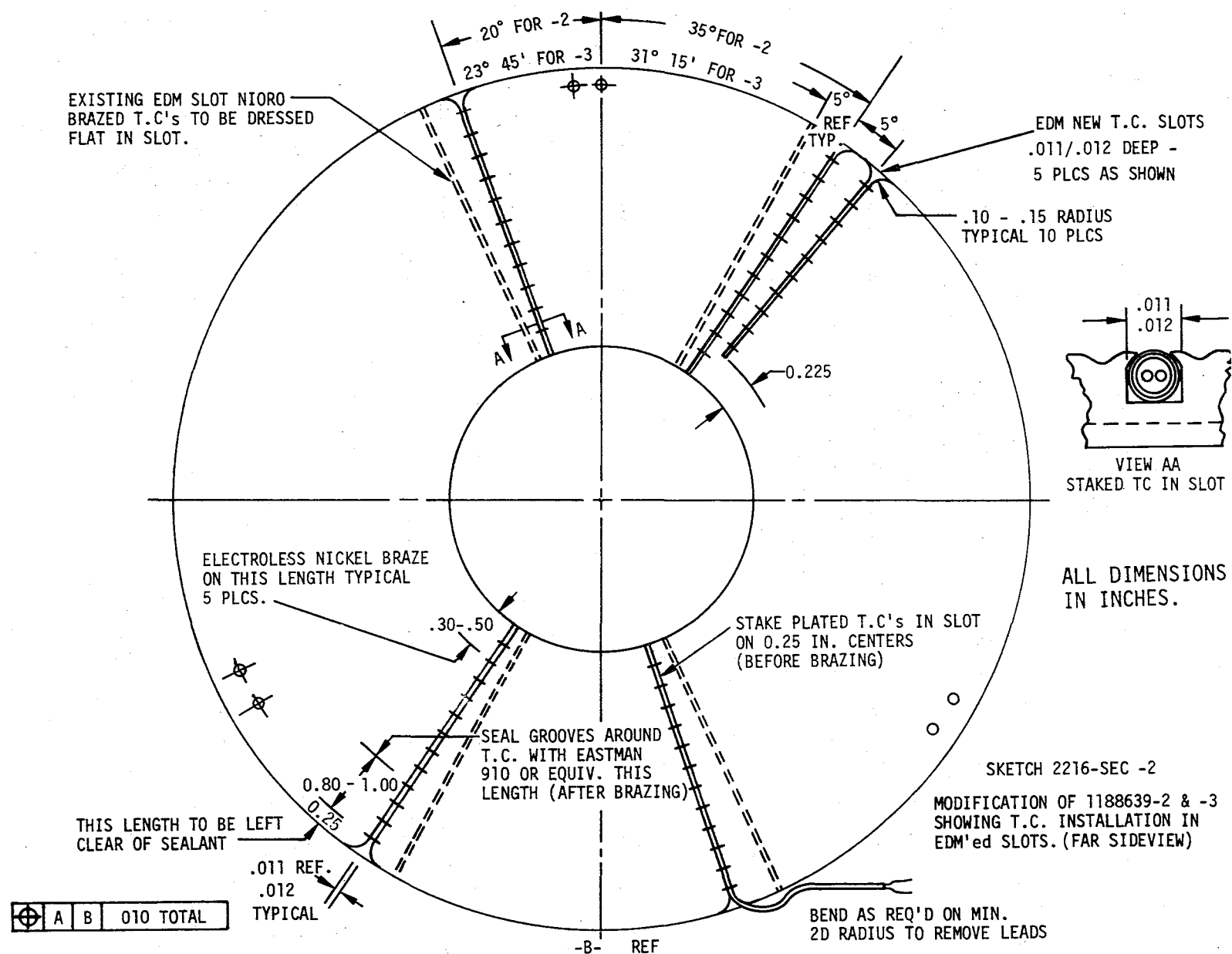


Figure 36. Sketch 2216-SEC-2, Modification of 1188639-2 and -3 Showing TC Installation

### III, D, Task III - Fabrication and Cold Flow Testing (cont.)

outlet which was connected to a pressure regulator. The stack inlet was connected to a high pressure GN<sub>2</sub> source which included a filter, a pressure regulator and an instrumented, calibrated sonic orifice for flow rate measurement. The stack inlet and outlet pressures and the orifice pressure and temperature and the source gas inlet temperature were recorded. The measured flowrates through the assembled platelet stack and the corrected values for a 70°F nitrogen gas inlet temperature are shown on Figures 37 and 38 together with the predicted curve calculated for a 70°F gas inlet temperature. As can be seen the actual pressure drop through the stack was less than predicted. Hence, this stacking (clocking) sequence was used for hot fire tests with the hydrogen gas coolant inlet pressures adjusted to obtain the desired flow-rate.

Prior to assembly of the trans-regen chamber, several of the component and subassemblies were photographed. The forward and aft regen chamber assemblies are shown on Figures 39 and 40.

Partial stack (Section 1 only) and total stack cold flow test results are presented on Tables XI and XII respectively. The partial stack (Section 1) measured and predicted GN<sub>2</sub> flowrates vs pressure drop are shown on Figure 41 for comparison. As can be seen fairly good correspondence was obtained, measured and calculated values are within 10% of each other.

Circumferential flow distribution cold flow tests were also conducted with the platelet stack, in the Trans-Regen chamber assembly, using a pie shaped rubber plug to seal over 290 - 300 degrees circumferential arc. This allowed GN<sub>2</sub> to flow through the platelet stack only over an approximate 60° segment at a time. Thus separate tests were conducted for each segment. Results are shown on Table XIII. As can be seen, circumferential flow distribution was quite uniform. The maximum variation in segment flow

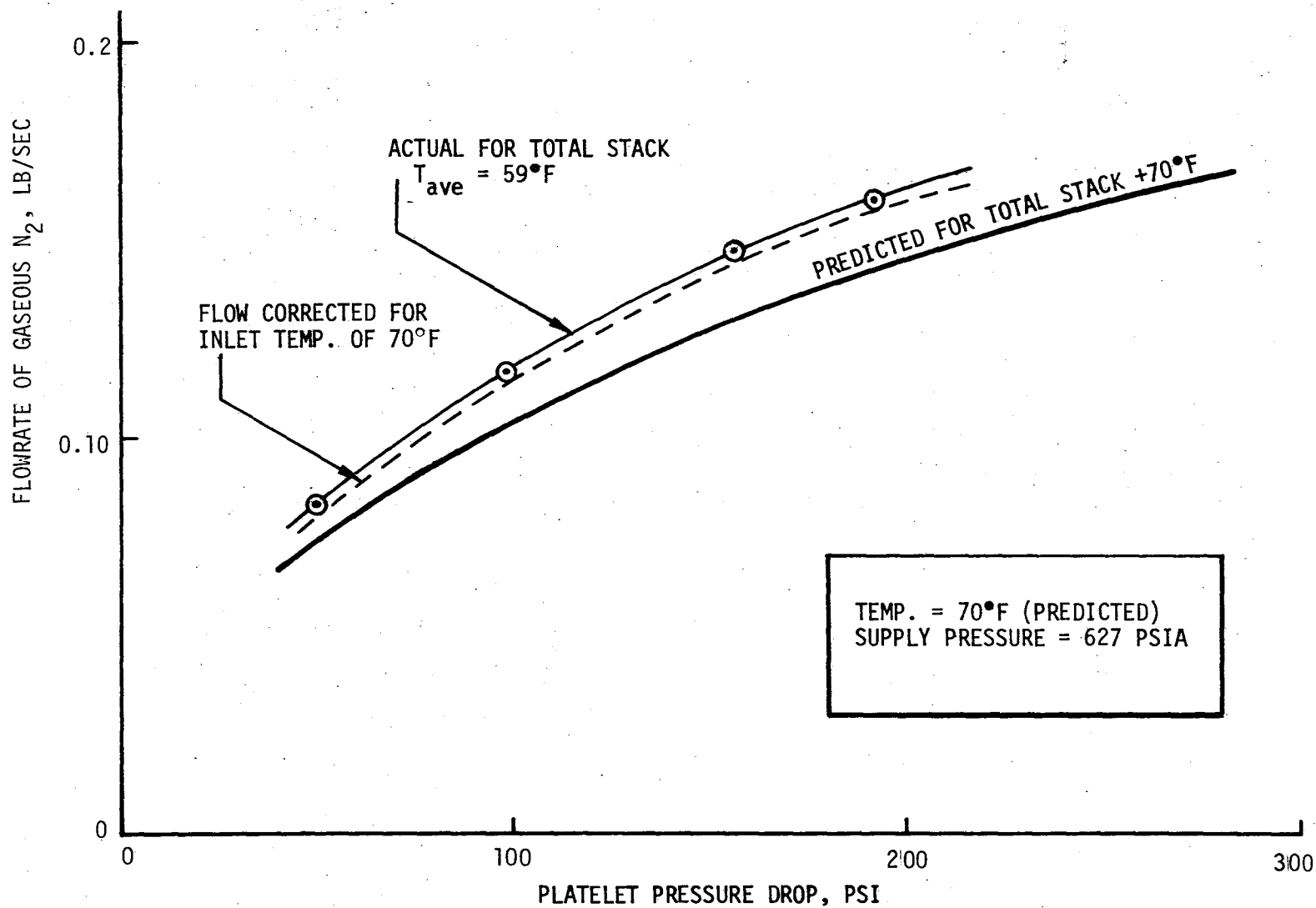


Figure 37.  $GN_2$  Flow Rate Through Transpiration Section - Low Pressure

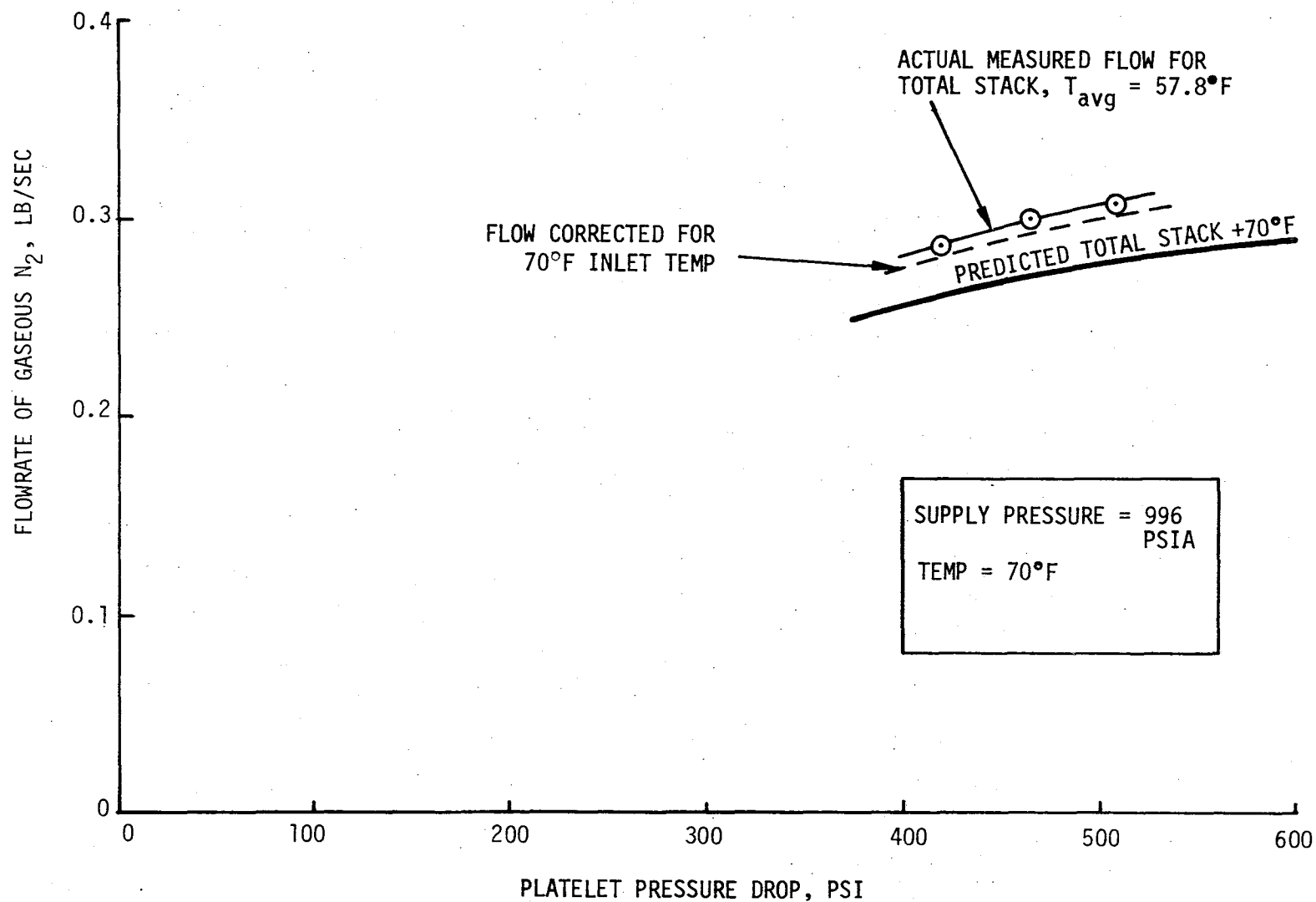


Figure 38. GN<sub>2</sub> Flow Rate Through Transpiration Section - High Pressure

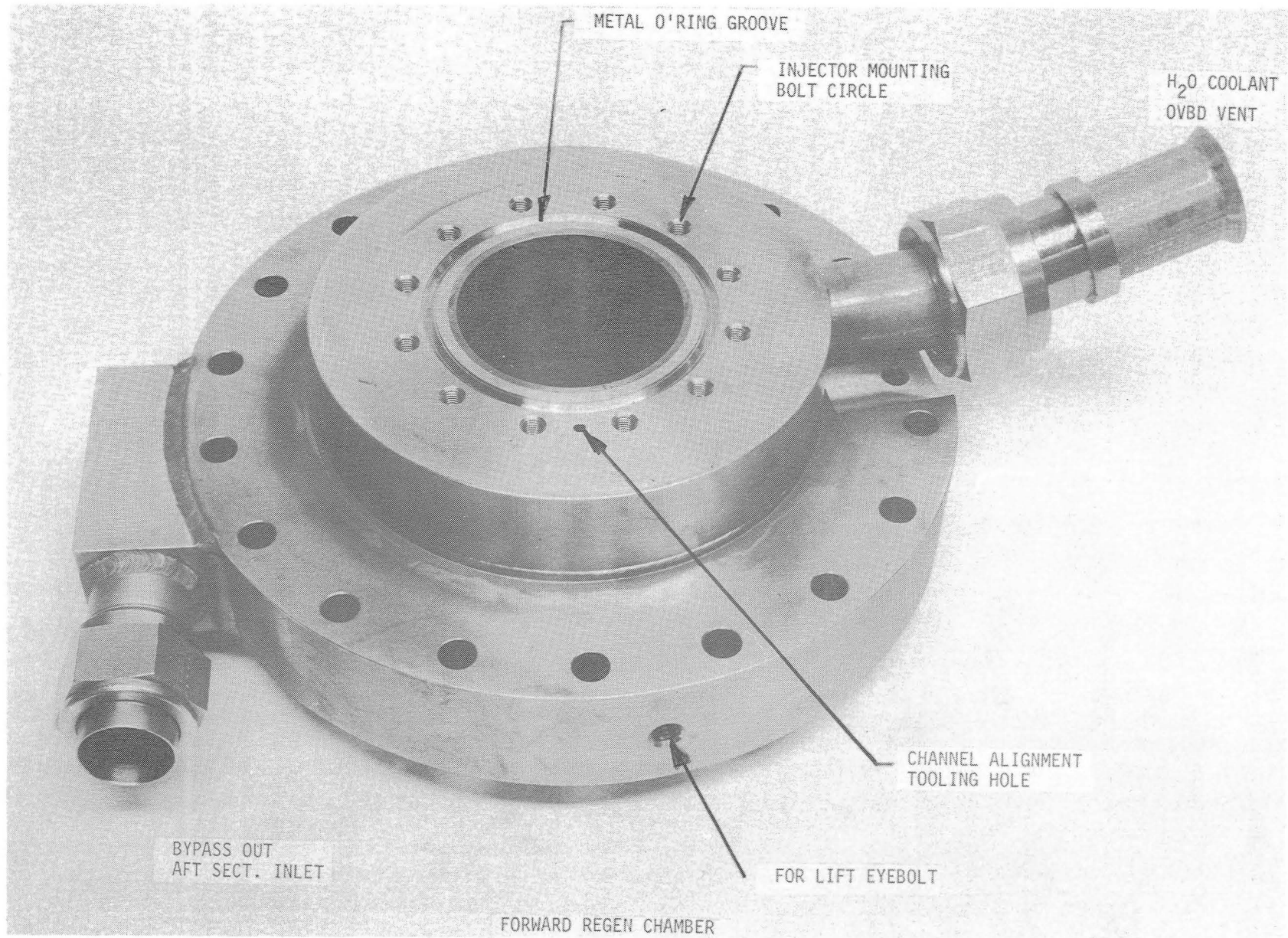
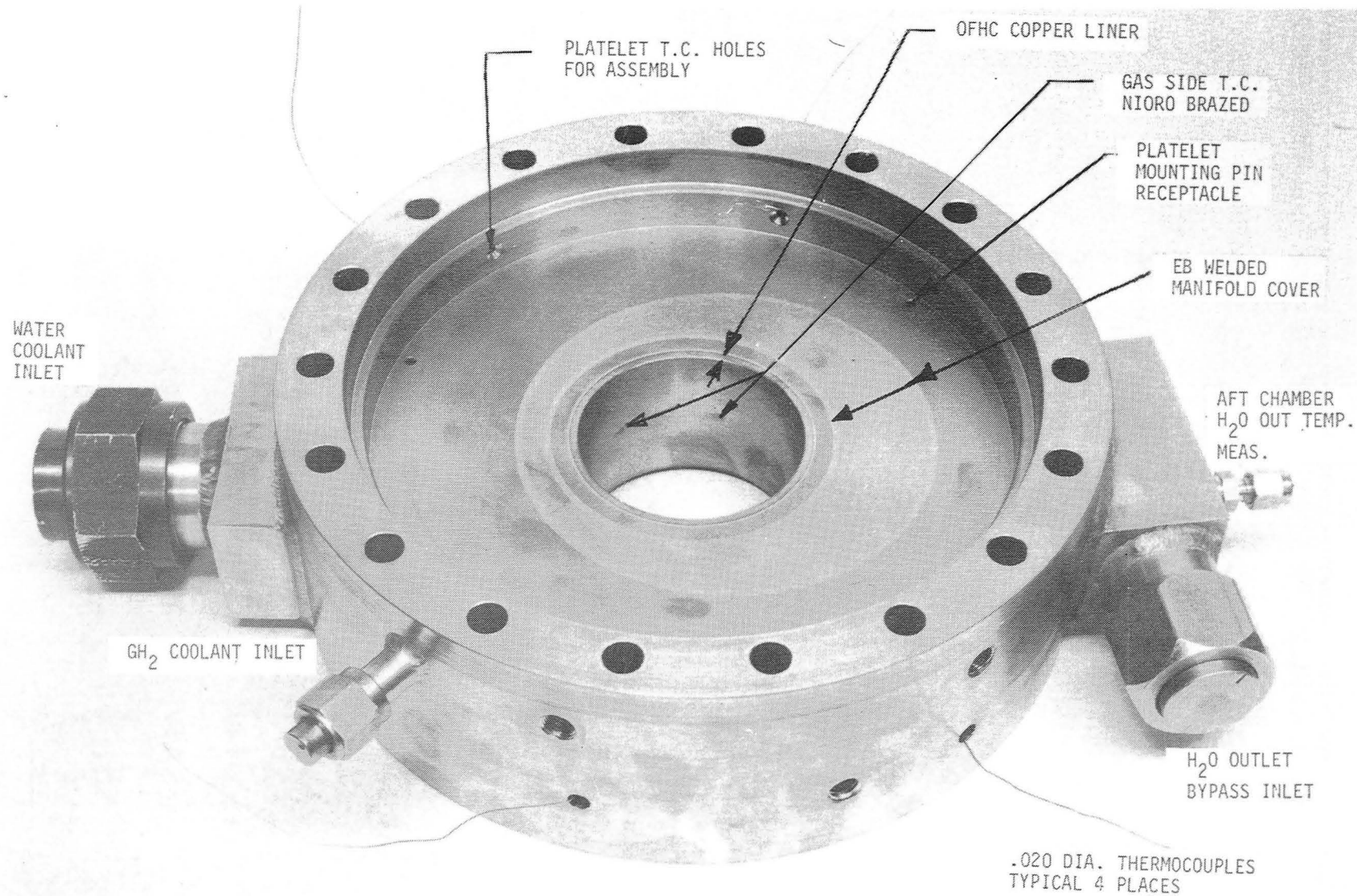


Figure 39. Forward Regen Chamber



AFT REGEN CHAMBER FOR TRANS-REGEN PROGRAM

Figure 40. Aft Regen Chamber



TABLE XI

## SECTION 1 ONLY COLD FLOW TEST RESULTS - TRANS REGEN CHAMBER

<u>Test No.</u>	<u>1</u>	<u>1A</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>
P <sub>inlet</sub> - psia	620.6	621.9	629.3	633.3	624.9	1006.4	990.6	987.9	980.5
P <sub>chamber</sub> - psia	569.2	552.5	534.7	491.9	383.8	656.4	585.8	482.7	423.9
T (inlet) - °F	75.2	72.9	71.8	67.9	65.4	64.7	59.4	59.6	59.1
T (at venturi) - °F	66.0	65.3	64.7	63.8	63.6	55.3	47.3	49.0	50.6
GN <sub>2</sub> Flowrate, lb/sec	.0691	.0810	.0960	.1170	.1460	.2506	.2728	.2940	.3000
ΔP (across stack) - psia	51.4	69.4	94.6	141.4	241.1	350.0	404.8	505.2	556.6
Corrected Flowrate, lb/sec	.0697	.0814	.0963	.1165	.1447	.2481	.2674	.2883	.2938

TABLE XII

## TOTAL STACK COLD FLOW TEST RESULTS - TRANS REGEN CHAMBER

<u>Test No.</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>
P <sub>inlet</sub> - psia	633.1	628.8	634.5	623.1	994.9	997.4	997.8
P <sub>chamber</sub> - psia	585.5	530.7	478.6	431.5	575.0	531.3	486.8
T (inlet) - °F	64.1	60.1	54.4	53.1	61.2	56.7	54.4
T (at venturi) - °F	56.6	55.3	49.7	48.98	53.0	44.8	41.4
GN <sub>2</sub> flowrate, lb/sec	.0838	.1184	.1478	.1595	.2867	.300	.309
ΔP (across stack) - psi	47.6	98.1	155.9	191.6	419.8	466.1	511.0
Corrected flowrate, lb/sec	.0828	.1162	.1434	.1544	.2819	.2925	.299

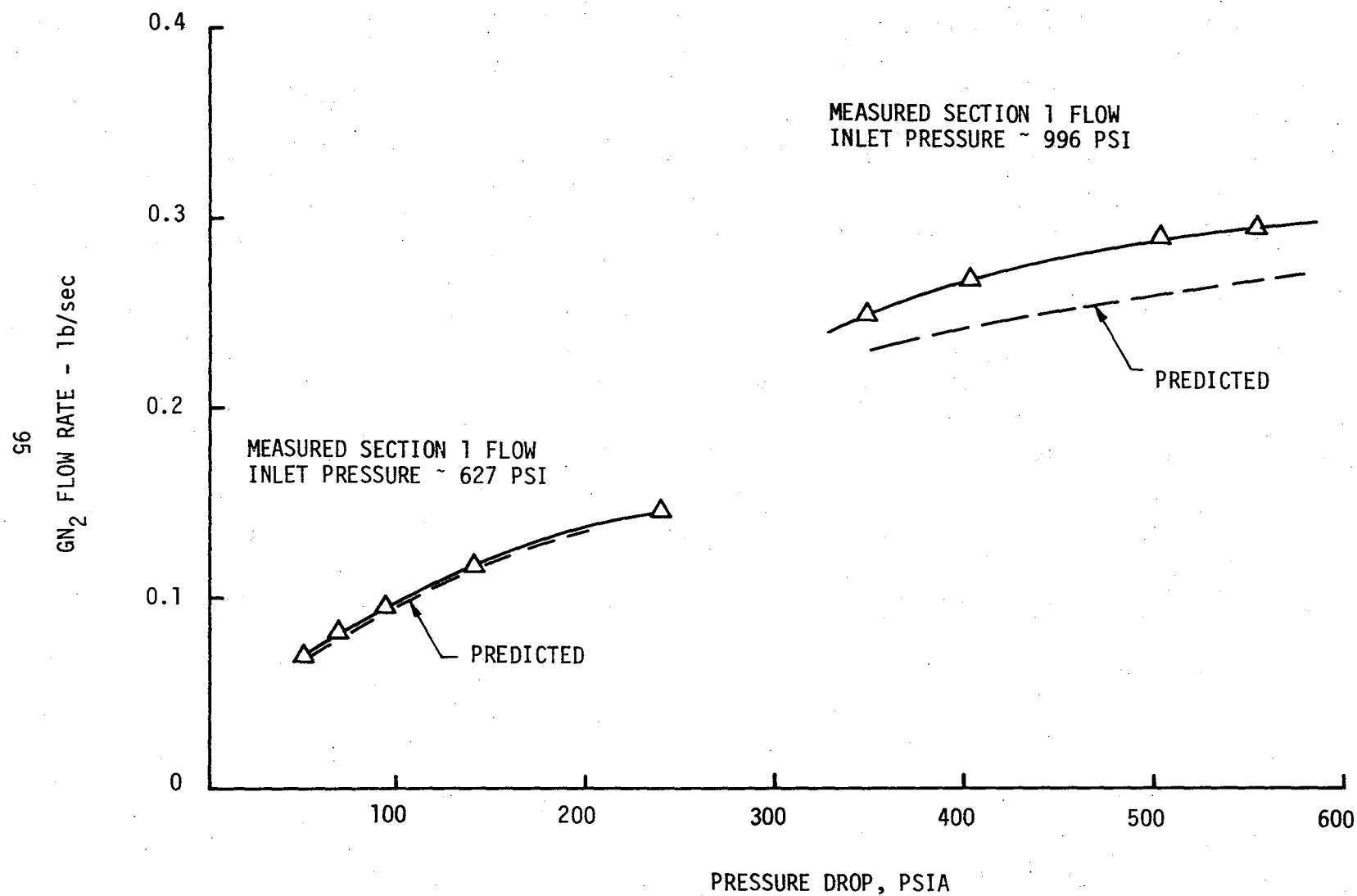


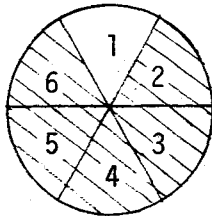
Figure 41. Comparison of Measured and Predicted GN<sub>2</sub> Flowrates,  
Section 1 Cold Flow of Trans-Regen Platelet Stack

TABLE XIII

MEASURED CIRCUMFERENTIAL FLOW DISTRIBUTION  
TRANS-REGEN PLATELET STACK COLD FLOW

Segment No.	1A*	1B*	2	3	4A	4B	5A	5B	6A	6B
P vent, psia	413.4	413.4	421.8	414.5	412.5	417.0	410.9	414.1	412.3	412.1
T vent, °F	80.5	80.3	79.9	79.6	81.5	81.4	81.9	81.8	79.9	79.8
p in., psia	97.8	97.8	96.4	96.0	100.1	100.9	100.6	101.1	92.0	92.0
T in., °F	73.4	73.3	72.6	72.3	74.2	74.0	75.1	74.8	72.8	72.7
w, lb/sec	.01088	.01089	.01111	.01092	.01085	.01097	.01081	.01089	.01086	.01086
ΔP, psia	83.1	83.1	81.7	81.3	85.4	86.2	85.9	86.4	77.3	77.3
Sig., -	.05760	.05584	.05557	.05557	.05646	.05706	.05606	.05656	.05289	.05296
kW, $\frac{\sqrt{1b} \cdot in}{sec}$	.00505	.00506	.00521	.00514	.00494	.00495	.00493	.00493	.00537	.00537

Six Segments  
Flowed One at a Time



with Pie Shaped Plug

$$\bar{X} = \frac{\sum X_{1A-6B}}{n} = .005095 \text{ (mean)}$$

$$S = .00173 \text{ (Std Deviation)}$$

$$E = t_{0.005} S/\sqrt{n} = 3.25 .000173/\sqrt{10} = .000178^{**} \text{ (Standard Error)}$$

\*Note: Suffix letters A&B indicate original and repeated segment tests; repeated at random.

\*\*Note: Using the mean  $\bar{X} = .005095$  as an estimate of the true segment flow coefficient, we can state with a probability of 0.99 that the maximum circumferential variation in kW will be .000178, or within 3.5%, for this platelet stack.

### III, D, Task III - Fabrication and Cold Flow Testing (cont.)

distribution was quite uniform. The maximum variation in segment flow coefficient was within 3.5%, from one segment to another, over the full 360 degrees of platelet stack internal flow area (circumference).

### E. TASK IV - THRUST CHAMBER TESTING

#### 1. Objective

The objective of this task was to empirically measure by hot fire testing the hot gas wall temperatures in the transpiration and downstream regen sections of the trans-regen chamber and to determine the associated performance loss. The basic test matrix, regen and trans-regen tests, is shown in Table XIV.

#### 2. Test Facility Preparation, NASA Engine Installation and Checkout

The NASA supplied main injector, regenerative cooled cylindrical spool, and the water cooled center plug (uncoated) were installed and the test stand preparations were completed. The thrust carriage assembly, lines valves, measurement equipment, etc., are installed in the test bay as seen on Figure 42. A mounting separate from the engine stand was fabricated to hold the igniter assembly, mounted to the deck and not connected to the main engine thrust carriage. The ignition system plus associated plumbing was installed with the igniter exit oriented normal to the main flow centerline. Existing  $\text{GH}_2$  and  $\text{GO}_2$  flow control orifices were used with slightly less flow area than those used previously at NASA. The igniter was installed sufficiently away from the main engine exiting gas so as not to be heated during the firing. This distance can be seen on Figure 43. Igniter check-out tests were conducted. These tests showed the igniter to be an excellent torch throwing the flame well across the gas path from the main engine exit.

TABLE XIV

## TEST MATRIX

<u>Test Type</u>	<u>Test No.</u>	<u>Core MR</u>	<u>Transpiration Coolant</u>
Regen	101	5.9	None
Regen	102	6.2	None
Regen	103	5.6	None
Regen	104	5.8	None
Trans-Regen	105	5.8	Hydrogen
Trans-Regen	106	5.8	Hydrogen
Trans-Regen	107	5.8	Hydrogen
Trans-Regen	111	5.5	Helium
Trans-Regen	113	5.6	Hydrogen
Trans-Regen	115	5.9	Hydrogen
Trans-Regen	117	5.8	Hydrogen

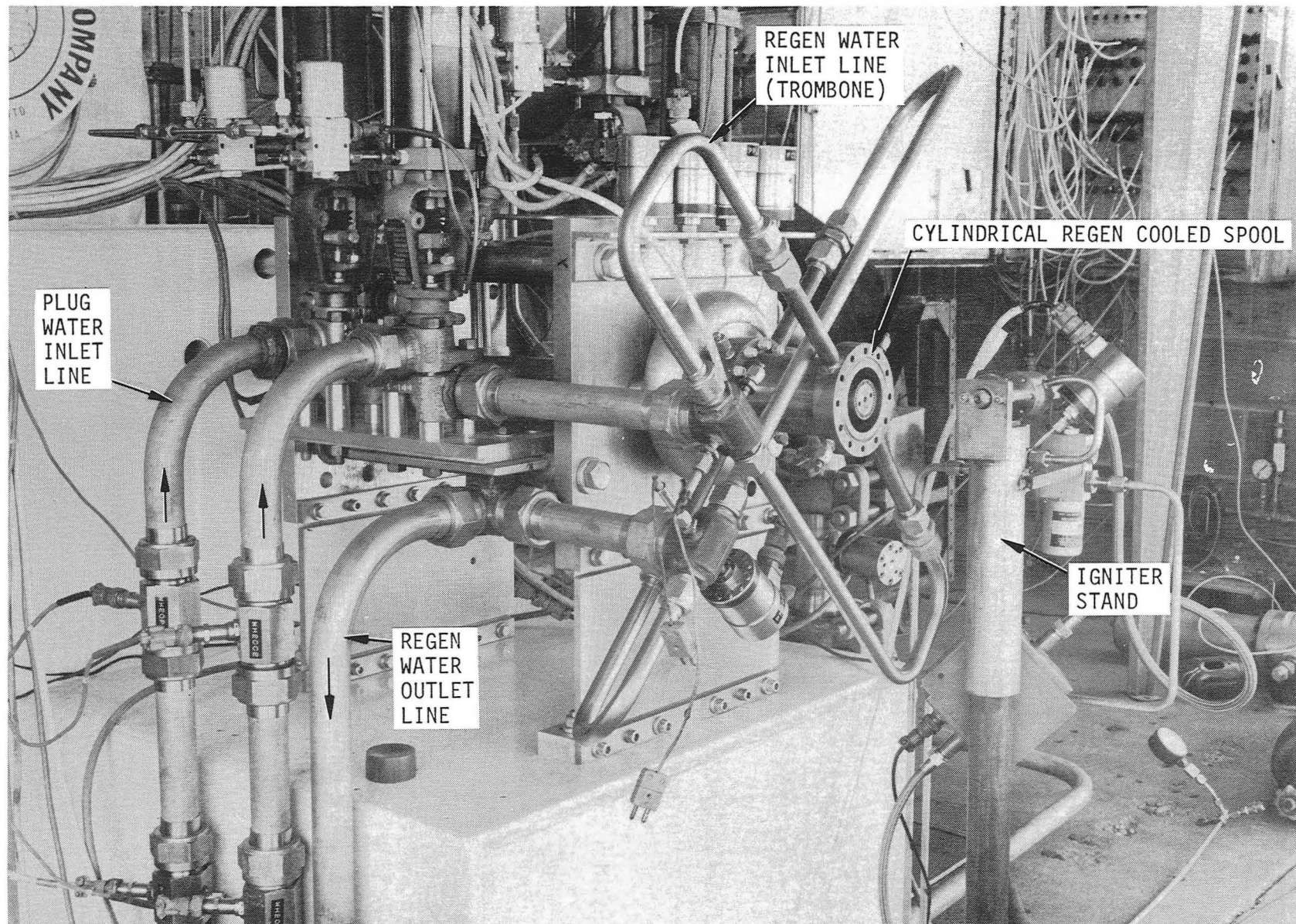


Figure 42. Trans-Regen Test Stand with NASA Regen Chamber, Left Side View



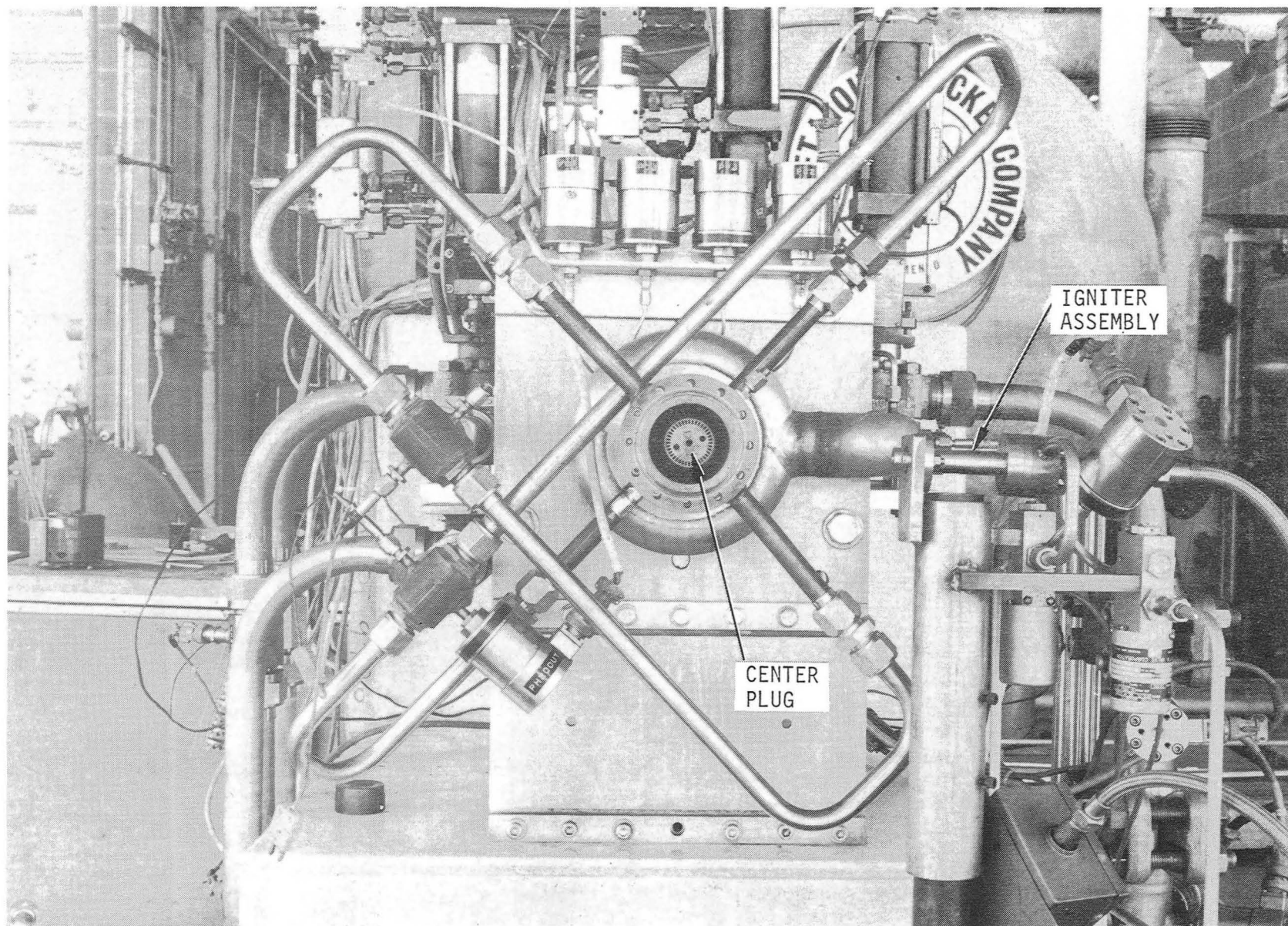


Figure 43. Head-on View of Test Stand with NASA Chamber



### III, E, Task IV - Thrust Chamber Testing (cont.)

The thrombone shaped lines connect the cylindrical spool dual inlet and exits. An orifice was fabricated for installation in the regen spool exit water line to maintain a back pressure of approximately 300 psi. The water cooled plug and regen spool water flow circuits were flow checked on the stand. Water flow rates were measured as 14.8 and 15.0 lb/sec for the central plug and regen chamber spool respectively. Plug cooling water flow was slightly higher than used in NASA tests, regen chamber flowrates were essentially as calculated with the FD 0115 program at ALRC, for the spool channel geometry. The right side view of the test stand and test setup ready for stand calibration is shown on Figure 44.

#### 3. Baseline Regen Tests

Because of the short test duration (5-10 sec) and the number of engine kill parameters (aborts) a computerized testing sequence was necessary. This was developed and checked out concurrent with the test stand and measurement instrumentation calibration. Instrumentation and recording problems which arose during calibration were systematically overcome one-by-one during August. The checkout hot fire test (No. 101) and the first hot fire performance test (No. 102) were conducted on 31 August followed successively by 103 and 104 on Friday, 1 September 1978. The test data computer sheets are shown in Appendix A.

#### Post Test Observations

After the initial performance test the quipment was examined and it was noticed that the cylindrical thrust chamber spool had buckled inward approximately 0.040 inch on the diameter. This occurred approximately 1/8 - 3/16 inch forward of the exit and was essentially uniform within 0.010 around the periphery. It was noted that the buckling position corresponded

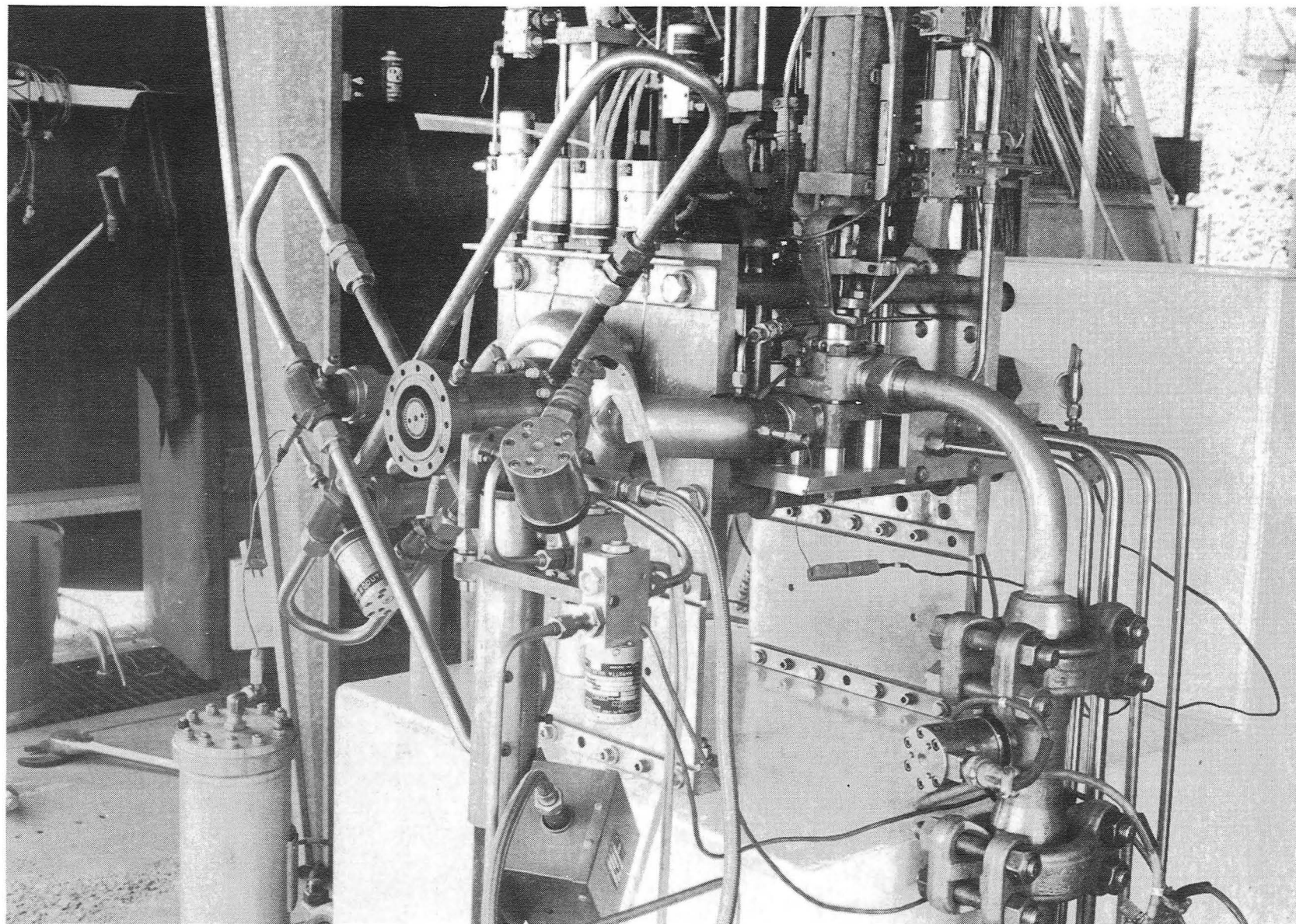


Figure 44. Test Stand with NASA Regen Chamber, Right Side View

### III, E, Task IV - Thrust Chamber Testing (cont.)

to the downcomer opening for the cooling channels which were unsupported on the outside diameter. A quick calculation revealed that this growth could be expected due to differential thermal expansion of the hot copper liner and could result in a semi-permanent set in the material. In addition, telephone conversations with NASA-LeRC personnel who had used an identical chamber design in previous cyclic test programs revealed that buckling at this station was normal and in fact they also had noted inward buckling near the injector end as well. As a consequence it was felt safe to proceed with the test program.

After all the baseline performance tests were completed the cylindrical chamber was removed and photographs taken. These are shown on Figures 45 through 47. A closeup view of the water cooled plug taken just before chamber removal is shown on Figure 47.

Post fire chamber and plug measurements were taken after disassembly and are shown below. Chamber forward and aft end measurements were taken in line with the water inlet and exit tubes respectively. Bulge diameters are minimum and maximum.

Forward - Inlet and Chamber I.D., in. - 2.594/2.593

Aft - Exit End Chamber dia, in. - 2.594/2.590

Bulge Station (3/16 in. forward of exit), in. - 2.551  
minimum/2.568 maximum

Throat Station - Plug dia, in. - 2.095/2.097

- Chamber dia, in. - 2.596/2.597

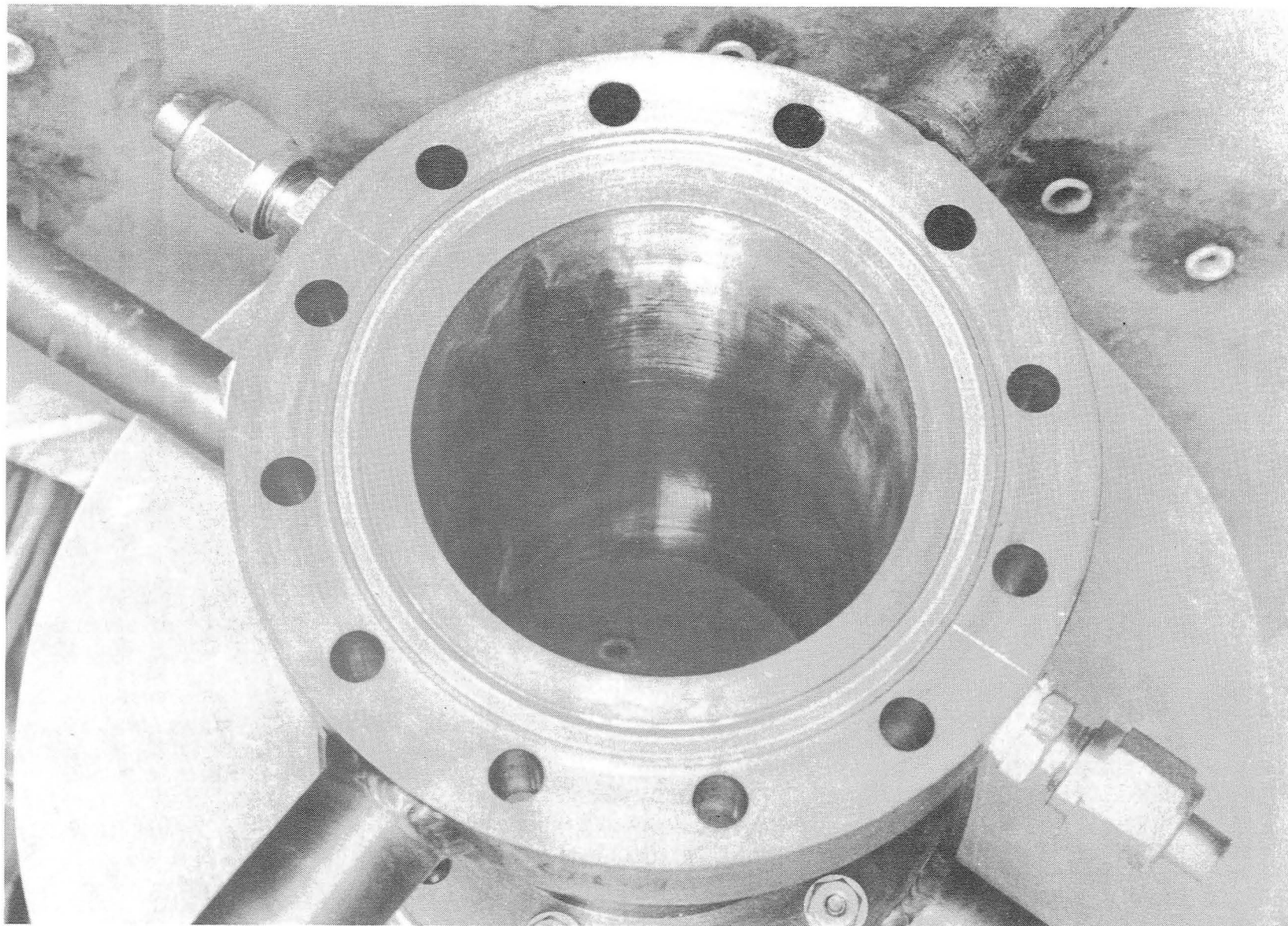


Figure 45. NASA-LeRC Cylindrical Spool-Post Test View from Forward End



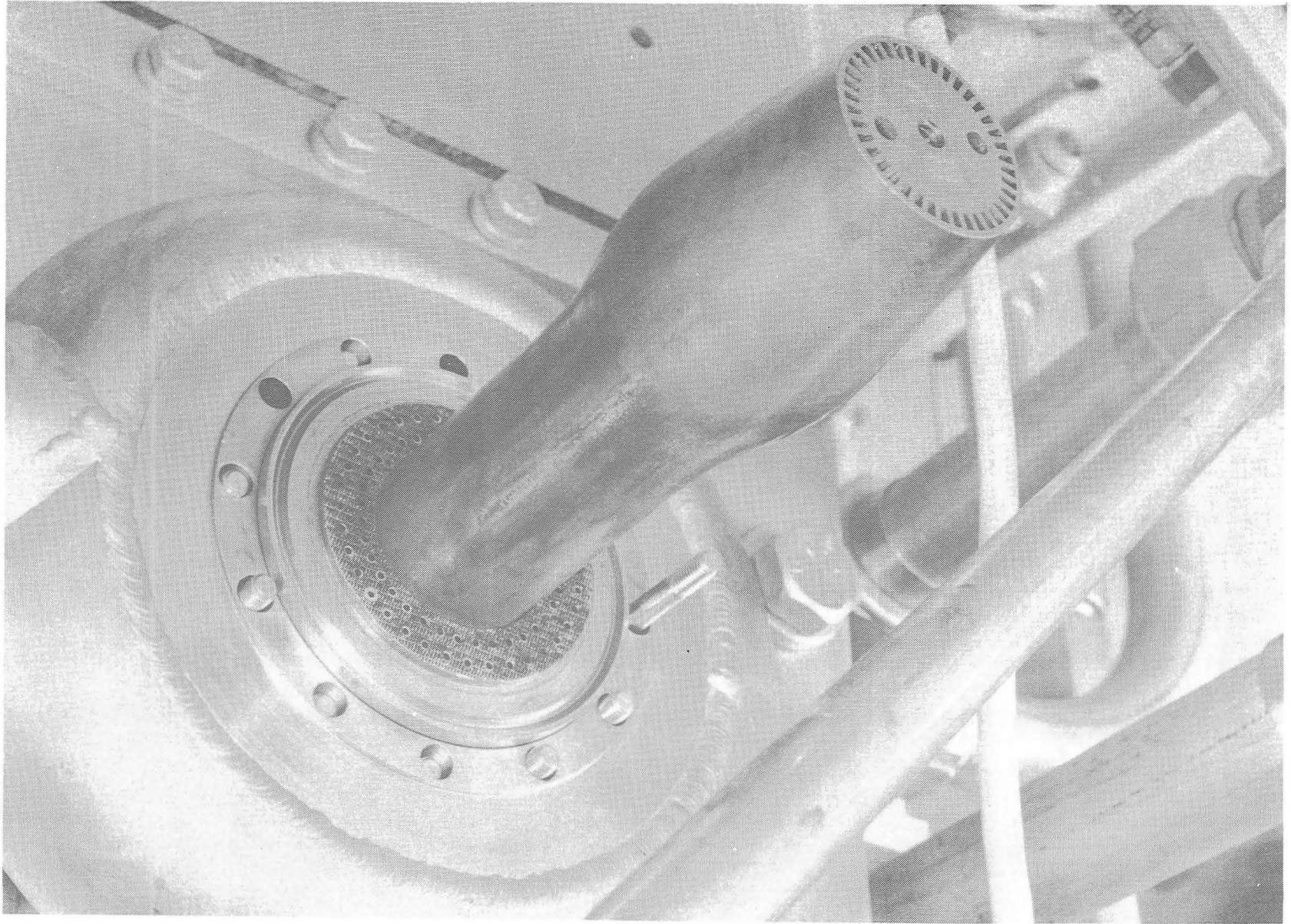


Figure 46. NASA-LeRC Water Cooled Plug and Injector - Post Test

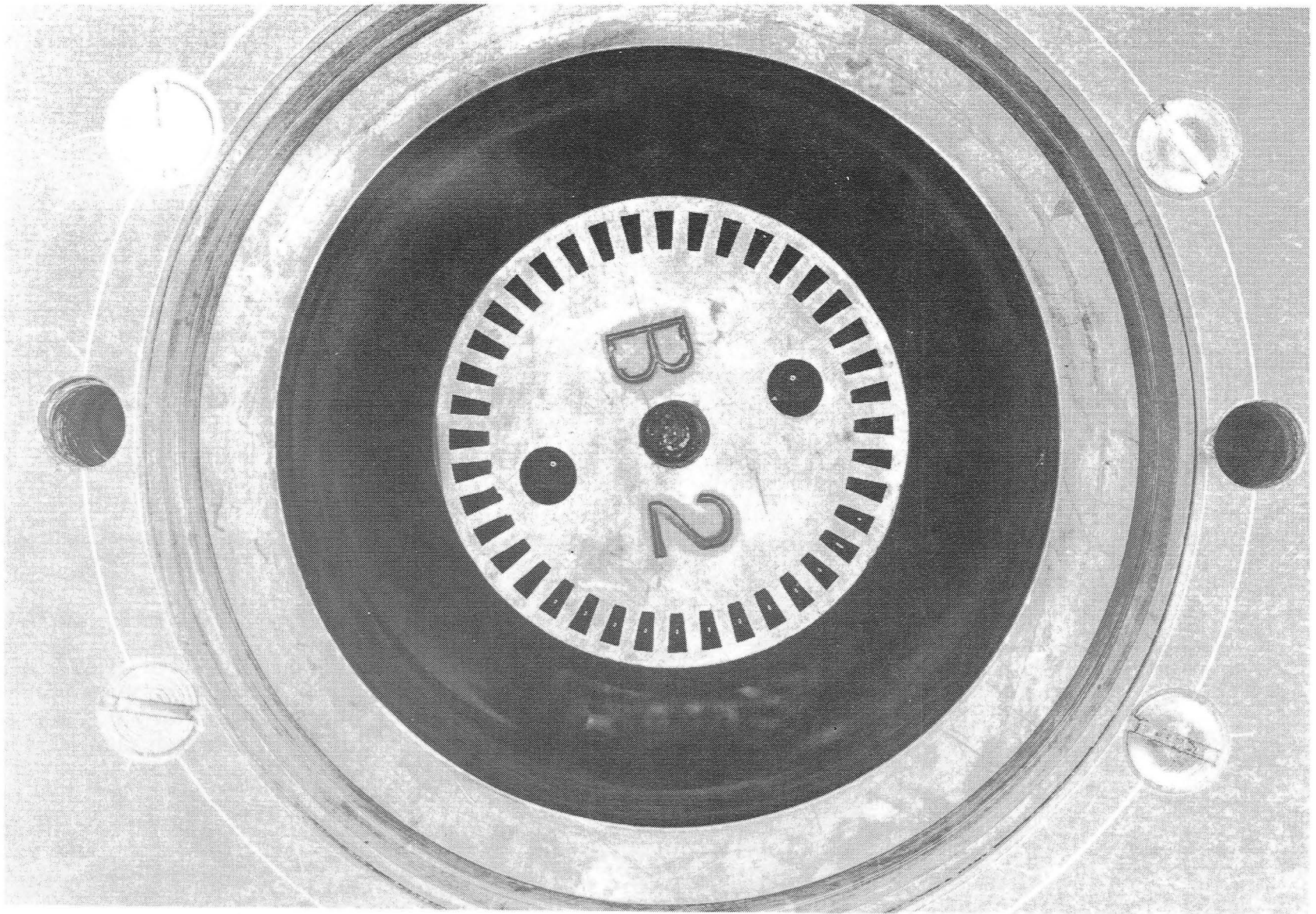


Figure 47. NASA-LeRC Cooled Plug Viewed from Aft End

### III, E, Task IV - Thrust Chamber Testing (cont.)

#### 4. Trans-Regen Tests - First Series

A replacement water cooled plug was received from NASA for trans-regen testing and installed for the trans-regen fire tests. It was assumed that the new plug would not change engine performance so that baseline regen tests were not repeated. The first series of trans-regen assembly tests consisted of three hot fire tests number 105, 106 and 107. The computer test data is contained in Appendix B. All of these tests were normal firings of five (5) sec steady state operation. Note, however, that the data acquisition system did not record for the complete test duration on the first two tests. On test no. 105, chamber pressure started to rise at a sequence time of approximately 0.65 seconds. Gas side wall temperatures up to 1245°F were recorded which were considerably higher than predicted (500°F). The data file ended at approximately 3.45 seconds. On test no. 106 the data file ends at 1.17 seconds. Higher than expected temperatures were again recorded on this test verifying the values recorded on no. 105. Performance data however was inconclusive. On test no. 107 the data acquisition system recorded for the full test duration including the post fire cooldown. Prior to this test, the cylindrical assembly was rotated relative to the injector assembly 60° counterclockwise such that there would be thermocouples in the 9-10 o'clock and 3-4 o'clock positions which upon post fire visual inspection (test no. 106) appeared to be hot streaks. Again, higher than normal temperatures were measured. At this point testing was stopped until results were analyzed and an action plan prepared for the remaining test program.

During installation and assembly several of the installed thermocouples were damaged or became "open circuit" and did not record useful data. These are crossed out on Figures 48 and 49 which tabulate the temperatures recorded on tests no. 105 and 106 and test no. 107 respectively.

INTRA-WALL T.C.'s	T.C. #1	6	11	
GAS SIDE T.C.'s	2	7	12	16
GAS SIDE T.C.'s	3	8	13	17
GAS SIDE T.C.'s	4	9	14	18
GAS SIDE T.C.'s	5	10	15	19

## TEMPERATURE, °F

X	X	151 135	(TEST 106) (TEST 105)
X	890 835	550 533	432 430 (TEST 106) (TEST 105)
1380 1245	X	X	426 410
669 645	862 906	806 830	840 838
X	1230 1076	940 875	462 451

[X] T.C.'s NO LONGER VIABLE i.e. OPEN CIRCUIT

Figure 48. Thermocouple Readings, Test No. 105 and 106



CYL. CHANNEL ROTATED 60° CCW (LOOKING FWD)  
i.e. LINE #2 MOVED TO APPROX WHERE #3 WAS

LINE #3 MOVED TO APPROX WHERE 10 o'clock Position was

LINE #4 MOVED TO APPROX WHERE #5 WAS

LINE #5 MOVED TO APPROX WHERE 4 o'clock Position was

TEMPERATURE, °F

INTRA- WELL T.C.'s	T.C. #1	6	11	
GAS SIDE T.C.'s	2	7	12	16
GAS SIDE T.C.'s	3	8	13	17
GAS SIDE T.C.'s	4	8	13	18
GAS SIDE T.C.'s	5	10	15	19

X	X	154	
X	1138	667	522
1460	X	X	445
X	1080	1005	925
X	1410	1060	509

☒ NO LONGER VIABLE T.C.'s i.e. OPEN CIRCUIT

Figure 49. Thermocouple Readings, Test No. 107

### III, E, Task IV - Thrust Chamber Testing (cont.)

The radial locations and temperature measurements are shown on Figures 50 and 51. It should be noted that the platelet tooling hole provided on the aft end of the assembly, which designates the 12 o'clock position for the platelet stack, was located on the test stand at an angle of  $15^\circ$  to the vertical centerline on tests no. 105 and 106. For test no. 107 this was rotated  $60^\circ$  CCW to an angular position of 315 degrees. T.C. positions and values recorded are located by circles for tests no. 105 and 106 and by triangles for no. 107.

The measured values for thrust (corrected for vacuum conditions) and overall engine O/F mixture ratio averaged over 1/2 second intervals were used to calculate the measured vacuum specific impulse vs mixture ratio curve shown on Figure 52. Performance tests no. 101-104, conducted with the NASA regen chamber were used to obtain a simple linear regression line, shown dashed, for extrapolation to lower mixture ratios. As may be seen, data for tests 105 and 107 show a performance loss in the 2-3 seconds range, less than the 1% performance loss goal of this contract work statement.

#### a. Thermal Discrepancies

Testing of the trans-regen assembly was discounted at the end of the first week of October 1978 because of the abnormally high thermocouple (TC) readings which appear to have increased with each subsequent test. A program plan recommendation was prepared for the conduct of several investigations as well as continuance of engine testing to complete the remainder of the program. Various technical alternatives for program continuation were discussed with NASA and a copy presented to the program manager.

One possible explanation for the higher-than-expected measured temperatures is that the gas side thermocouples were not in good

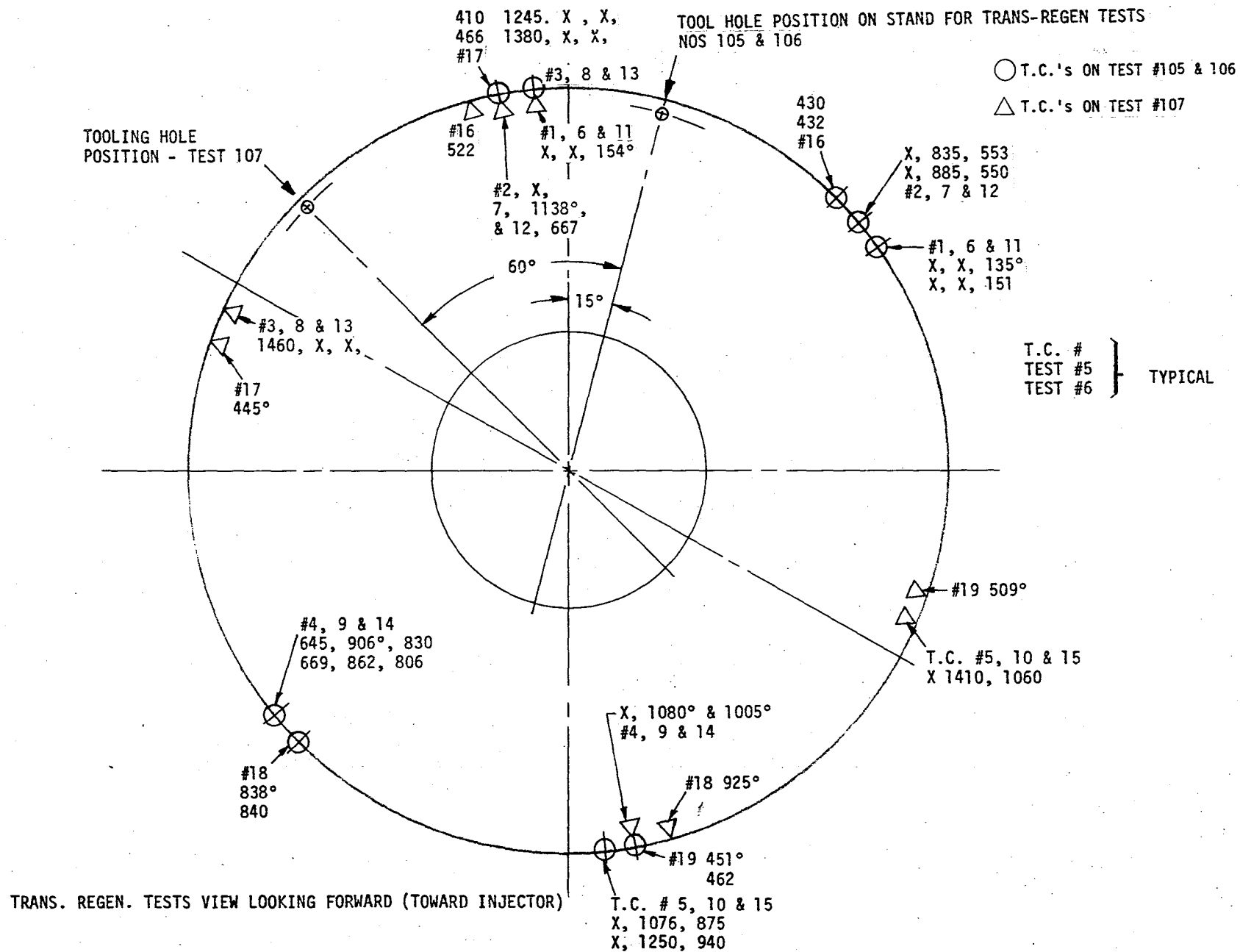
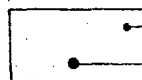


Figure 50. Thermocouple Radial Location

## TC LOCATIONS

TEST NO.		12:00	1:30	1:40	1:50	3:40	3:50	5:30	5:40	5:50	7:30	7:40	9:40	9:50	11:30	11:40	11:50
105	UPSTREAM		-	- <sup>2</sup>	- <sup>1</sup>					- <sup>5</sup>	- <sup>4</sup>	645					1245 <sup>3</sup>
	MID STACK		-	835 <sup>7</sup>	- <sup>6</sup>					1076 <sup>10</sup>		906 <sup>9</sup>					- <sup>8</sup>
	THROAT		-	533 <sup>12</sup>	135 <sup>11</sup>					875 <sup>15</sup>		830 <sup>14</sup>					- <sup>13</sup>
	DIV. NOZZLE		430 <sup>16</sup>	-	-				451 <sup>19</sup>	-	838 <sup>18</sup>					410 <sup>17</sup>	
106	UPSTREAM		-	- <sup>2</sup>	- <sup>1</sup>					- <sup>5</sup>		669 <sup>4</sup>					1280 <sup>3</sup>
	MID STACK		-	833 <sup>7</sup>	- <sup>6</sup>					1230 <sup>10</sup>		862 <sup>9</sup>					- <sup>8</sup>
	THROAT		- <sup>16</sup>	550 <sup>12</sup>	151 <sup>4</sup>					940 <sup>15</sup>		806 <sup>14</sup>					- <sup>13</sup>
	DIV. NOZZLE		432 <sup>16</sup>	-					462 <sup>19</sup>	-	840 <sup>18</sup>					426 <sup>17</sup>	
107	UPSTREAM						- <sup>5</sup>		- <sup>4</sup>					1460 <sup>3</sup>		2	1
	MID STACK						1410 <sup>10</sup>		1080 <sup>9</sup>					- <sup>8</sup>		1138 <sup>7</sup>	- <sup>6</sup>
	THROAT						1060 <sup>15</sup>		1005 <sup>14</sup>					- <sup>13</sup>		667 <sup>12</sup>	154 <sup>11</sup>
	DIV. NOZZLE					509 <sup>19</sup>	-	925 <sup>18</sup>					445 <sup>17</sup>		522 <sup>16</sup>		

NOTE: 1)



T.C. NUMBER

TEMPERATURE, °F

2) 12:00 IS VERTICAL CENTERLINE

Figure 51. Trans-Regen Temperature Data

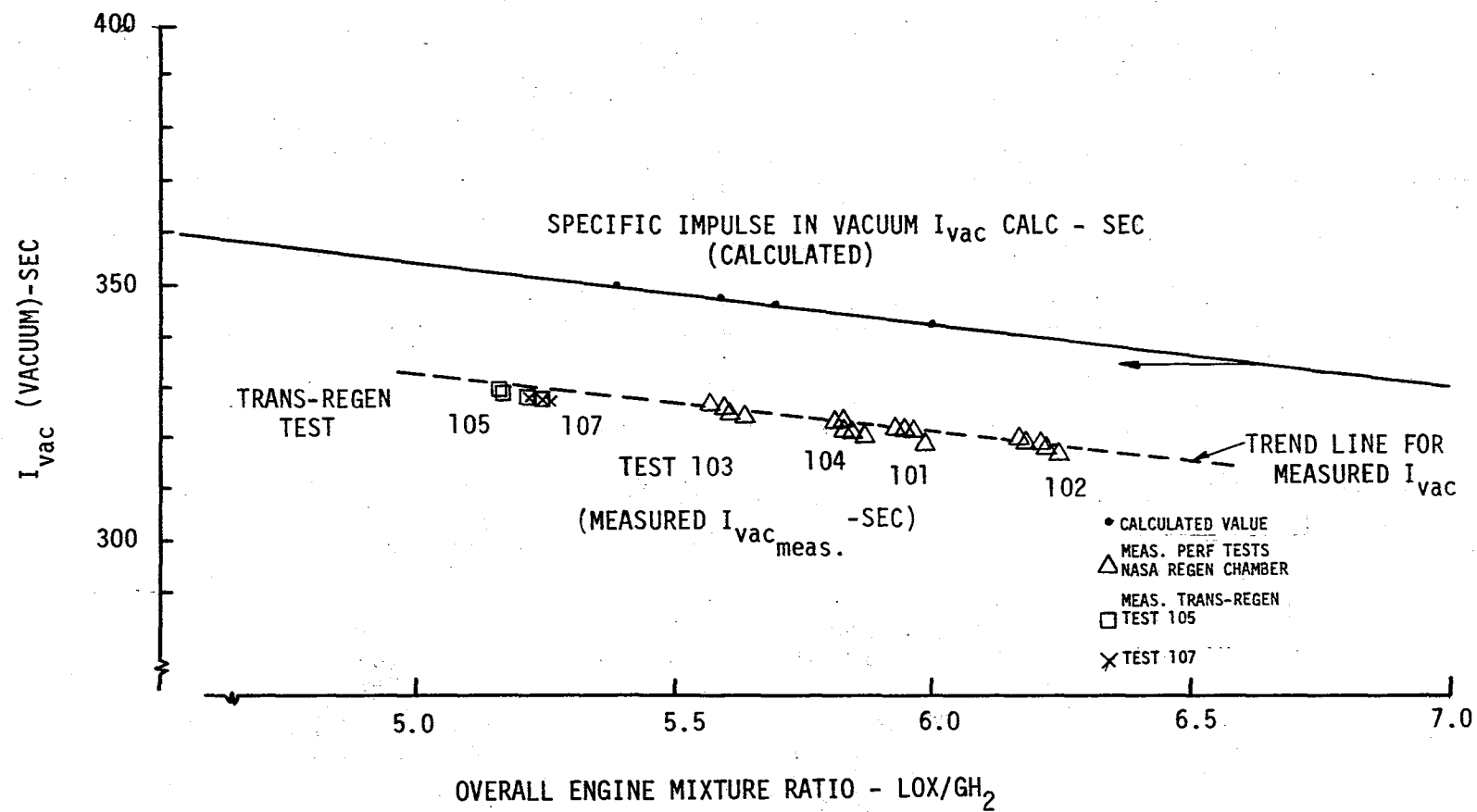


Figure 52. Comparison of Measured and Calculated Performance

### III, E, Task IV - Thrust Chamber Testing (cont.)

thermal contact with the copper platelet material in which they were embedded. Hence heat would "pile up" in the TC and when thermal equilibrium with the wall was reached, the TC would indicate a temperature part way between the hot gas boundary layer and that of the copper wall on the gas side. To verify this, the TC installation was modeled on the computer. By assuming an approximate 30% surface contact and a thermal contact resistance of  $10^{-4}$  ft<sup>2</sup>-hr/Btu temperature differences of 500-700°F between the TC and the copper wall were calculated.

The TC installations in the slots on the spare instrumented copper platelet were subsequently viewed under a microscope and only minimal point contact (at best) could be observed between the TC sheaths and the bottom and sidewalls of the EDM'ed slots. Since the thermal contact area as viewed under the microscope was even less than that assumed in the computer model an even greater difference in temperature would be possible. Thus it appears possible that part of the problem encountered in tests 105-107 was the result of poor thermal instrumentation.

The platelet stack temperature data obtained during the three transpiration cooling tests (105, 106, 107) were reviewed to determine if any correlation existed between the measured platelet temperatures and the injector pattern. The injector design contains 2 features which could give rise to non-uniformities in the pattern. These are:

1. The outer row oxidizer elements were replaced with pressure pickups at 2 locations. These two locations can be expected to be oxygen deficient and present a benign environment at the chamber wall. These locations are at 1:30 and 7:30 (tests 105, 106) and 3:30 and 9:30 (test 107). (Note: The chamber was rotated 60° counterclockwise between tests 106 and 107 when viewed from the throat. For ease of notation it will be assumed

### III, E, Task IV - Thrust Chamber Testing (cont.)

the chamber was held stationary and the injector was rotated clockwise.)

2. The oxidizer is fed into an oxidizer dome at a single location with a velocity component toward the oxidizer tube inlets. This can lead to a high oxidizer flow directly under the inlet due to inlet head effects. High oxidizer flow can also be anticipated 180° away from the inlet in the region where the oxidizer flow in the dome stagnates. The oxidizer inlet and stagnation points were located at the 3:30 and 9:30 locations respectively on tests 105 and 106 and at the 5:30 and 11:30 locations on test 107.

There appeared to be no design features in the fuel circuit which would give rise to nonuniform fuel flow.

As a result of the above it is possible to identify a total of four different wall conditions which might have existed around the circumference of the injector pattern. In order of increasing severity these are:

1. The area of injector face pressure pick-ups.
2. The regions considered "normal" (uniform propellant flow).
3. The area under the oxidizer inlet.
4. The area under the oxidizer dome stagnation point.

Temperatures were measured at 3 axial positions within the platelet stack. Combining these three axial locations with the 4 circumferential conditions gives a matrix of 12 combinations. When the measured platelet temperatures are placed within this matrix as done in Figure 53, there appear to be some trends. First, the measured temperatures appear to be influenced by their location relative to the injector, with temperatures increasing with increasing oxidizer concentrations. This can be interpreted two ways:

CIRCUMFERENTIAL LOCATION →	IN-LINE WITH PRESSURE PICKUPS (NO OXIDIZER)	NORMAL PATTERN	IN-LINE WITH OXIDIZER DOME INLET	IN-LINE WITH OXIDIZER DOME STAGNATION	PREDICTED TEMPERATURE
AXIAL POSITION ↓					
LEADING EDGE	645° 669° AVG 657°	1245°* ← 1280°* ← AVG 1262°	--	→ 1460°*	365°
MID STACK	835° ← 833° ← 906° ← 862° ← AVG 859°	1138° → 1076° ← 1230° ← 1080° → AVG 1131°	→ 1410°	--	460°
THROAT	533° ← 550° ← 830° ← 806° ← AVG 674°	667° → 875° ← 940° ← 1005° → AVG 872°	→ 1060°		500°

NOTE: ARROWS CONNECT THE READINGS FOR A GIVEN THERMOCOUPLE, ALL TEMPERATURES ARE IN °F

\* TC-3 - THIS THERMOCOUPLE INSTALLATION WAS OF PARTICULARLY POOR QUALITY

Figure 53. Platelet Temperature as a Function of Location Relative to the Injector Pattern



### III, E, Task IV - Thrust Chamber Testing (cont.)

1. The greater concentrations of oxygen give rise to more intense combustion and a resulting higher local turbulence level. This produces areas of high gas side film coefficients and high platelet temperatures.

2. The greater concentrations of oxygen result in hot, unburned oxygen being present immediately adjacent to the wall. The hydrogen coolant mixes and reacts with this oxygen and gives areas of very high heat fluxes and high platelet temperatures.

A postfire examination of the platelet stack (discussed below) indicated the second interpretation was the more likely.

In the oxygen rich areas the copper was oxidized, indicating the presence of oxygen in the boundary layer. The copper appeared to have experienced a bright anneal cycle (hot hydrogen) in the areas of the heated surface not in line with the high oxygen flow. Thus the data indicate the hot areas are chemically different (more oxygen) than the areas of chamber considered more normal.

A second trend which is apparent in the data is the tendency of the midstack to run hotter than either the upstream edge or the throat (downstream end of stack). This is different than the thermal model predicts as can be seen in Figure 53. Possible explanations for this include combinations of a cold boundary layer coming off the upstream regeneratively cooled section, delayed combustion of the coolant but with all the oxygen consumed by the time the throat plane is reached, higher than anticipated mixing of the coolant and hot free stream gas, and an inadequate accounting of the effects of coolant carryover from upstream to downstream. Additional testing with better quality thermal instrumentation and a non-reacting coolant (helium) gave further insight into this problem as discussed in Section III,F.

### III, E, Task IV - Thrust Chamber Testing (cont.)

#### b. Test Hardware Disassembly and Inspection

The transpiration cooled platelet stack was disassembled to allow a detailed inspection to be made of the individual thermocouples and to determine if any other evidence existed which would give insight into the behavior of the transpiration cooled section. The results of this activity are given below.

##### (1) Thermocouple Condition

The critical thermocouples in terms of understanding the experimental data are those mounted on the heated surface of the platelets. These thermocouples were installed by eloxing a .012 x .012 inch radial slot into the instrumentation platelet, staking the thermocouple into the slot by preening the copper over the edge of the thermocouple, and then brazing it in place. The braze was accomplished by plating the last 1/4 inch of each thermocouple with electroless nickel prior to placing it in the slot and then running through a furnace cycle to fuse the electroless nickel to the platelet. This installation procedure was used to avoid the problems of the braze material alloying with and embrittling the thermocouple sheath. This alloying had occurred the first time the thermocouple installation was attempted and resulted in a very high thermocouple mortality rate.

Eight of the twelve surface thermocouples functioned during the hot fire testing. Blown-up photos of these thermocouples are given in Figures 54 and 55. The condition of each couple is given in the following summary:

TC-3 - This thermocouple was in the poorest condition of any TC in the platelet stack. The last 1/4 inch of the eloxed slot was

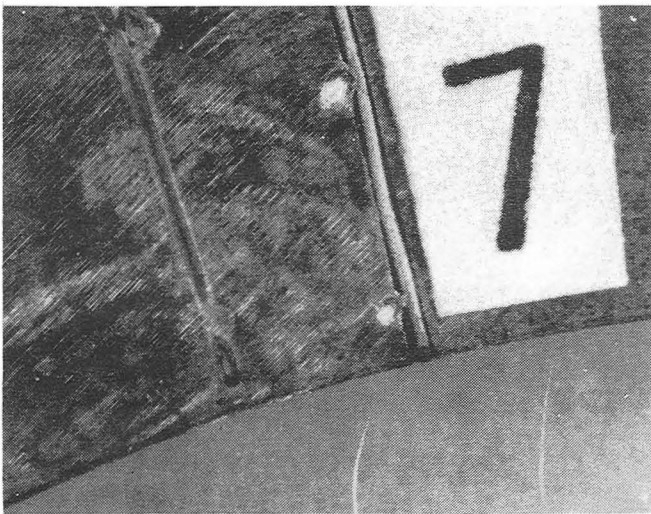
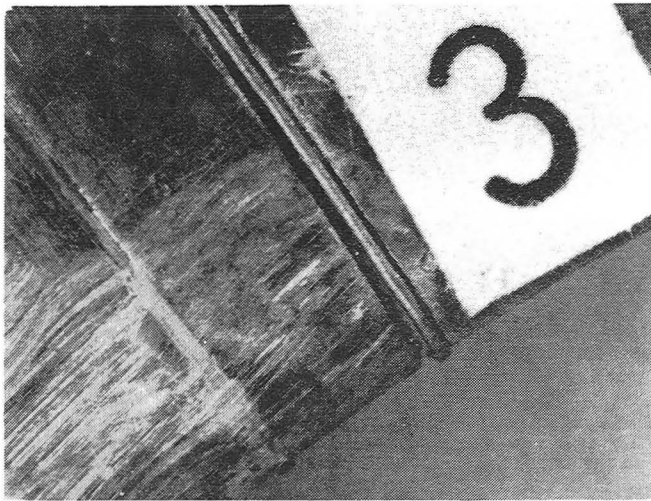


Figure 54. Thermocouples TC-3, TC-4, TC-7 and TC-9

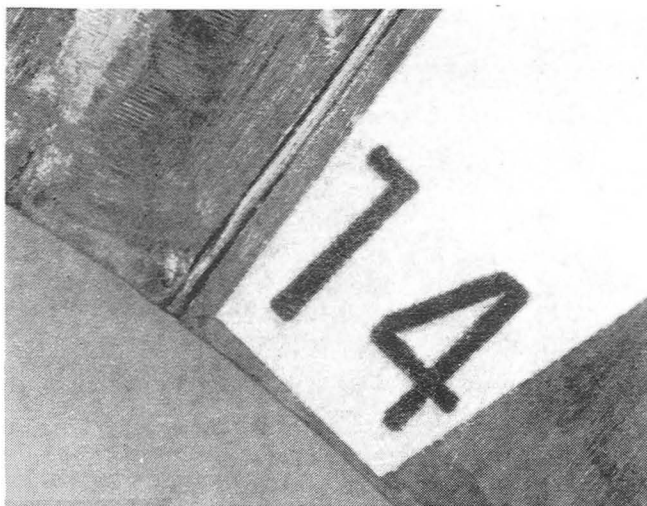
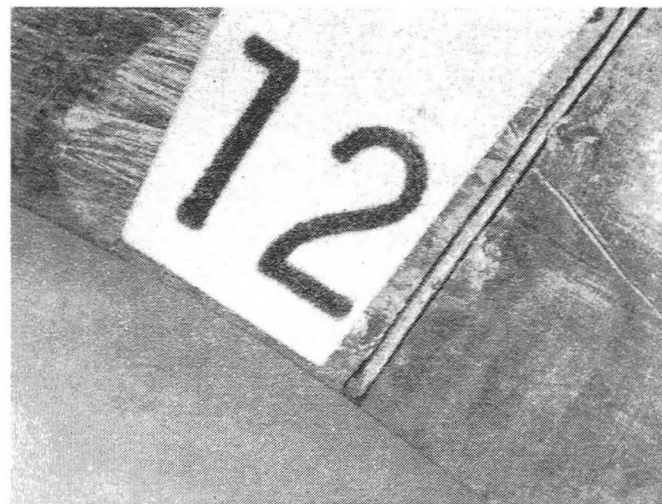
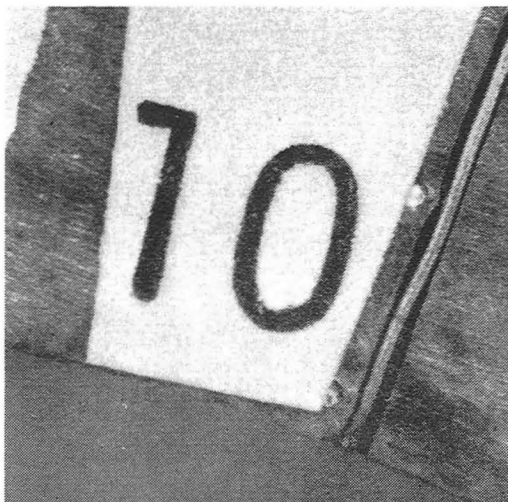


Figure 55. Thermocouples TC-10, TC-12, TC-14 and TC-15

### III, E, Task IV - Thrust Chamber Testing (cont.)

wider and deeper than specified and completely penetrated the platelet near the heated surface. In addition the thermocouple junction penetrated the platelet near the heated surface. In addition the thermocouple junction protruded from the platelet I.D. by about .004 in. and was lying loose in the slot. The net result was that the thermocouple had almost no thermal contact with the copper platelet and was likely reading a temperature very close to the boundary layer gas temperature. This was the highest reading thermocouple in the platelet stack and undoubtedly the least reliable.

TC-4 - TC-4 fit very snugly into its slot and the junction was flush with the heated surface. There was not visible evidence of a braze bond with the platelet. On balance this appeared to be the best of the thermocouples.

TC-7 - The slot for TC-7 appeared to be about .002 in. oversize but the junction was flush with the platelet I.D. There was no evidence of a significant braze bond with the copper and the thermal contact was marginal at best.

TC-9 - The junction on TC-9 was recessed about 0.004 in. from the platelet I.D. Otherwise it was much the same as TC-7.

TC-10 - The slot on TC-10 was about .005 in. wider than desired and resulted in virtually non-existent contact between the TC and the copper. The junction was flush with the surface. This was the next to hottest TC in the stack.

TC-12 - TC-12 was a snug fit in the slot and had its junction recessed about 0.003 in. from the surface. There was no real evidence of a braze joint. This was the coolest of the thermocouples.

### III, E, Task IV - Thrust Chamber Testing (cont.)

TC-14 - Similar to TC-7 but with a slightly narrower slot.

TC-15 - Very similar to TC-7.

Based on the poor contact between the copper and the thermocouples, all the thermocouples were probably recording temperatures in excess of those seen by the copper immediately adjacent to the junction.

#### (2) Platelet Condition

The post fire examination and subsequent disassembly of the platelet stack showed all the platelets to be in reuseable condition. The post fire inspection revealed the existence of microscopic copper "icicles" in the upstream part of the platelet stack in the 10-11 o'clock position. This is the region which was in line with oxygen manifold stagnation point on test 107 and visually appeared to be the hottest part of the platelet stack. During assembly the platelets were found to be very lightly welded together in this region but separated very easily. A detailed examination of the individual platelets in this area did not show evidence of metal removal or surface recession so the source of the molten copper which formed the icicles remains unclear. Possibly there may have been sharp corners on the platelets which were melted off in the very severe environment under the oxygen stagnation point.

There was no evidence of any blockage of the coolant passage inlets due to dirt or other contamination. Some grains of crystalline material resembling silica sand were found in the coolant manifold area of the housing, but none of it had lodged in the platelet stack.

### III, E, Task IV - Thrust Chamber Testing (cont.)

The general coloration pattern of the platelets was informative. As a rule the platelets showed stains or some slight degree of oxidation over the majority of their surface. These stains appeared to be the result of handling during assembly and/or exposure to water during water flow. They were not the result of the platelet stack having hydrogen flowed through the stack or having been hot tested. However, each platelet had a band 1/8 to 1/14 inch wide around its I.D. which showed the effects of the hot testing. For the most part this band was clean copper. In this band the hydrogen coolant flowing over the heated copper reduced the oxides and produced the effect of a bright hydrogen anneal. There were a few platelets in which the copper was oxidized immediately adjacent to the I.D., apparently the result of oxygen in the boundary layer. The majority of these oxidized areas were in line with the oxidizer stagnation point from either tests 105 and 106 or test 107. However, there were also some oxidation marks in the area between one of the pressure taps where there was an oxygen deficiency. The oxidized platelets were in the forward half of the stack and were predominantly diffusion platelets. Also a platelet could be oxidized quite severely without its neighbors being oxidized, giving a seemingly random character to the oxidation. Aside from the copper icicles mentioned previously there did not appear to be any damage associated with the oxidized areas.

The conclusions drawn on the basis of the post fire hardware examination are:

- a. The thermocouples were not in good thermal contact with the copper platelets and generally read temperatures higher than those experienced.

### III, E, Task IV - Thrust Chamber Testing (cont.)

b. A miniscule amount of surface melting of the copper occurred under the injector dome oxidizer stagnation point. It appears this area is particularly hot as a result of unburned oxygen from the injector reacting with the fuel coolant coming through the wall.

c. All parts of the paltelet stack are reuseable including the instrumentation platelets.

#### (3) Thermocouple Installation Evaluation

A very limited scope activity was conducted to determine if the thermocouples could be installed with torch brazing as opposed to the furnace brazing used previously. Torch brazing offered the possibility of reducing the time at the liquids temperature to an absolute minimum while still assuring that adequate braze melt and flow occurred. Brazing of the 0.010 in. diameter thermocouples requires great care. If there is inadequate melting of braze alloy it will not flow and wet properly and the thermocouple will not be in good contact with the platelet and the thermocouple readings will be suspect. If, on the other hand, there is too much time spent at or above the liquidus temperature the braze alloy will dissolve and alloy with the thermocouple sheath material, destroying the thermocouple.

The torch brazing experiment was conducted in the ALRC Instrumentation Development Lab using the residual practice instrumentation platelet as the test article. Nicoro 80 braze alloy was used with the heat being applied with a jeweler's oxyacetylene torch. Handy-Harmon Easy Flow flux was applied to the platelet. During the experiment two thermocouples were brazed into the platelet. The results were considered unsatisfactory. Although there was good flow of the braze alloy it appeared the copper on the



### III, E, Task IV - Thrust Chamber Testing (cont.)

platelet I.D. had been slightly eroded by the molten braze alloy and the braze alloy ran onto the etched pattern on the underside of the platelet. Furthermore, there was some buckling of the platelet in the vicinity of the braze joints, apparently the result of thermal stresses from the localized heating of the platelet. Based on these results it was concluded that the risks inherent in attempting to accomplish 6 TC torch brazes per platelet outweighed the possible benefits.

#### (4) Thermocouple Positioning

After a review of the test results and disassembly and inspection of the hardware, it was agreed that the existing instrumentation platelets should have new thermocouples installed in the following circumferential locations on each of the three instrumentation platelets.

a. In-line with the oxidizer stagnation point -- This is the hottest location in the platelet stack and temperatures must be monitored in this area to avoid damage to the test hardware. Two TC's will be mounted in this location, one at the heated surface (platelet I.D.) and the other approximately 0.015 in. below the surface. The subsurface TC's constitute a back-up for the surface TC's and also will provide a check on the thermal model.

b. In-line with "normal" areas of the injector pattern -- Two surface TC's will be installed on each platelet which are not in-line with either the oxidizer inlet or stagnation point or with the injector face pressure taps. These TC's will give the temperature of the platelets under "normal" operating conditions.

### III, E, Task IV - Thrust Chamber Testing (cont.)

c. In-line with the injector face pressure taps -- Two surface TC's will be installed on each platelet in-line with the injector face pressure taps, which are region deficient in oxygen. These locations are least likely to have unburned oxygen reacting with the coolant fuel and will provide a good check on the analytical cooling model.

The location of each of the TC's is shown in Figure 56.

#### (5) Thermocouple Rework

The poor contact between the thermocouples and the copper instrumentation platelets led to the conclusion that the thermocouples may have been recording temperatures well in excess of that seen by the copper immediately adjacent to the junction. In an attempt to prevent recurrence of this condition, a detailed thermocouple installation plan was developed. The plan and the actual results are shown below.

(a) Planned - Reduce the width of the thermocouple slots from .011-.012 to .0105-.0110.

Actual - The slot width and depth were held to .011 inches maximum.

(b) Planned - Stake the copper on both sides of the TC slot instead of just one side.

Actual - TC's were staked in place on both sides.

(c) Planned - Ensure that the TC junctions are flush with the edge (I.D.) of the platelet.

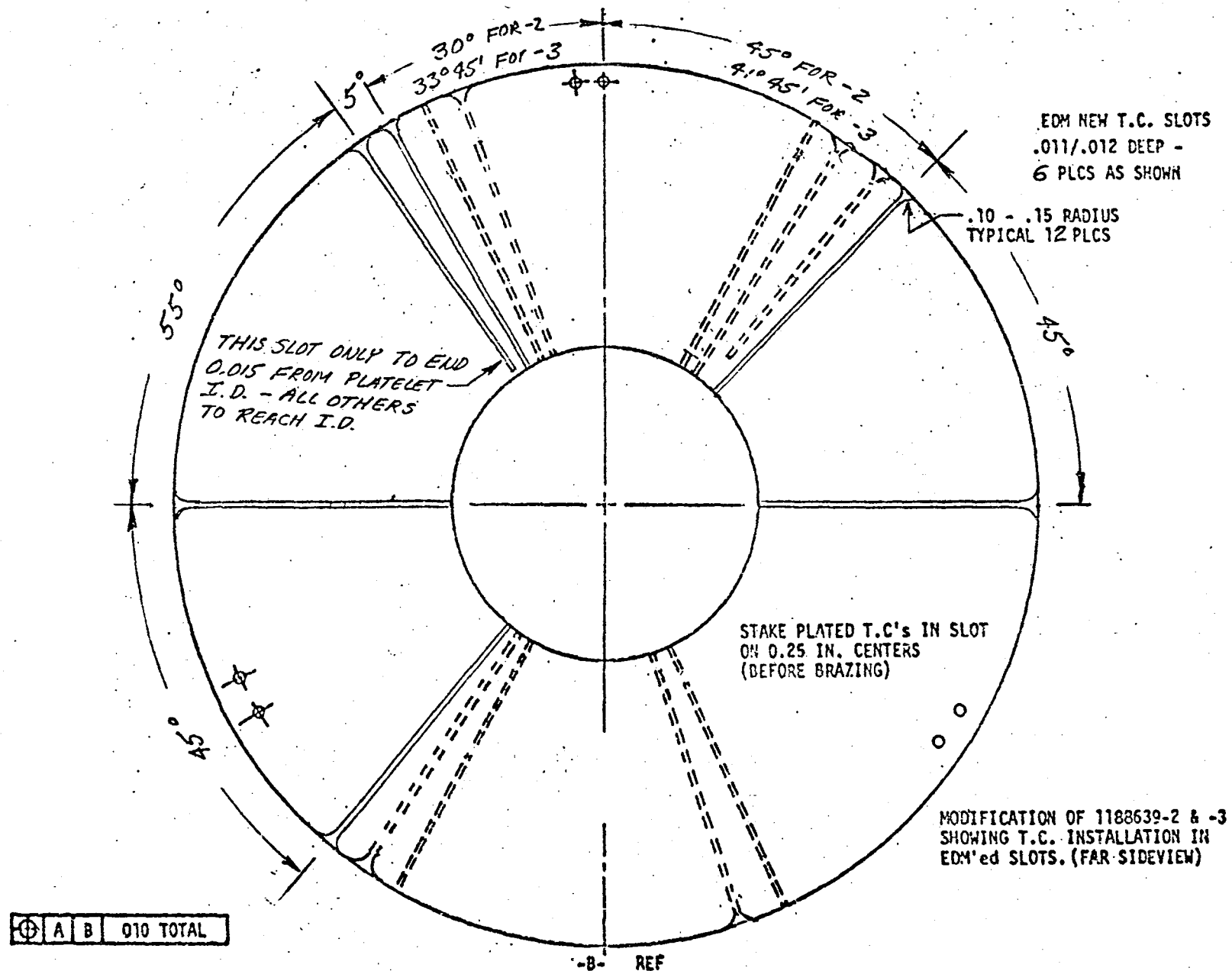


Figure 56. Thermocouple Locations

### III, E, Task IV - Thrust Chamber Testing (cont.)

Actual - All TC junctions prior to brazing were within .002 inches of the edge of the platelet (except for buried thermocouples). The location of each TC junction was measured and recorded.

(d) Planned - Ensure that the braze alloy completely fills the voids between the TC and copper in the area of the TC junction.

Actual - After brazing it is difficult to determine the extent of contact or "wetting" of the TC junction. The junctions were examined under a microscope and the apparent contact was recorded. In general, the thermal contact appeared to be good (significantly better than the post-test condition of the original TC junctions - the pre-test condition was not recorded).

The results of the brazing are shown in Figures 57 through 60. Although not all thermocouple junctions are "perfect", i.e., flush with edge of the platelet and completely wetted with braze to provide good thermal contact, most of the TC's can be classified as good to very good. A visual record has been made of each TC for later comparison with the test data.

#### 5. Trans-Regen Tests - Second Series

##### a. Objective

On the previous hot fire tests, completed in October 1978, the experimental data did not correlate with analytical predictions. Specifically, the hot gas wall thermocouple readings were much higher than predicted and extremely nonuniform. As discussed previously the cause of the unpredicted readings has been attributed to: (1) poor thermal contact

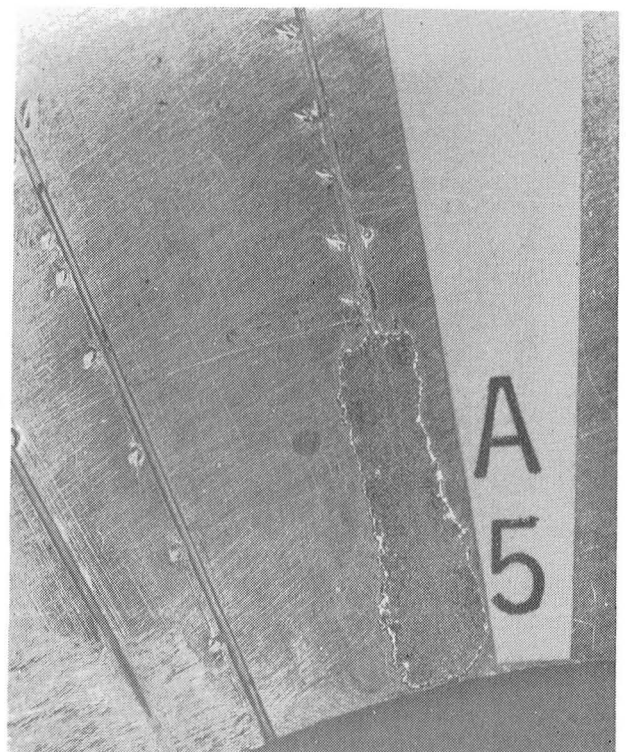
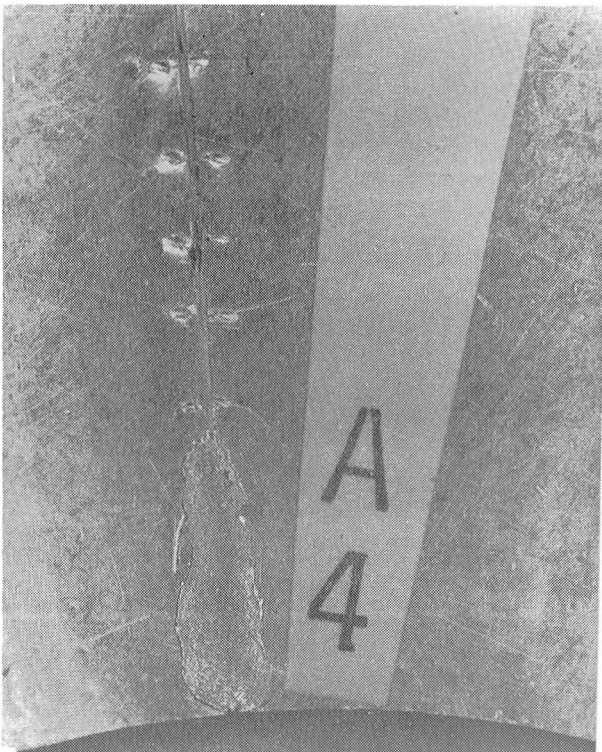
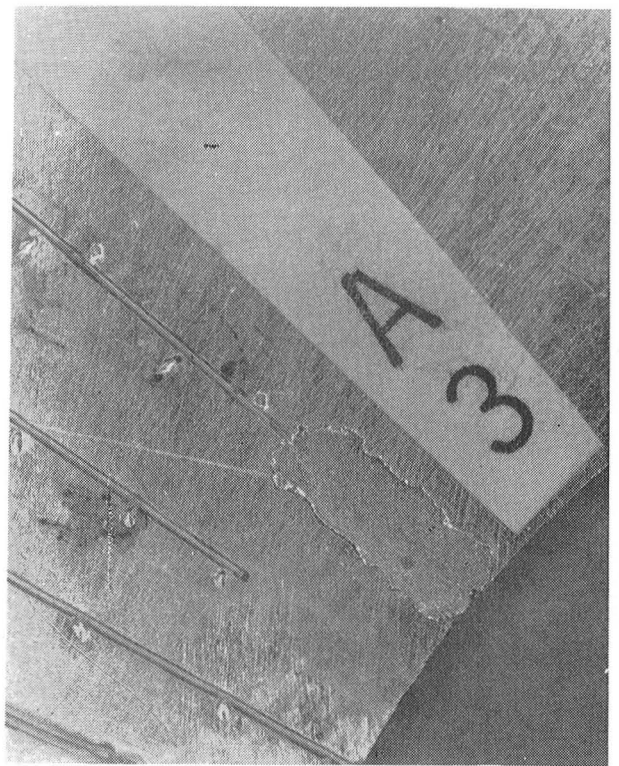
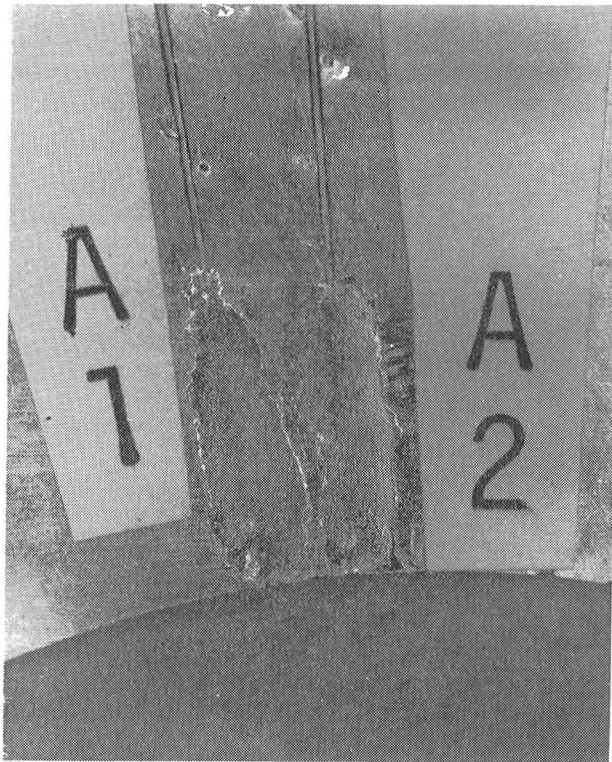


Figure 57. Thermocouple Installation



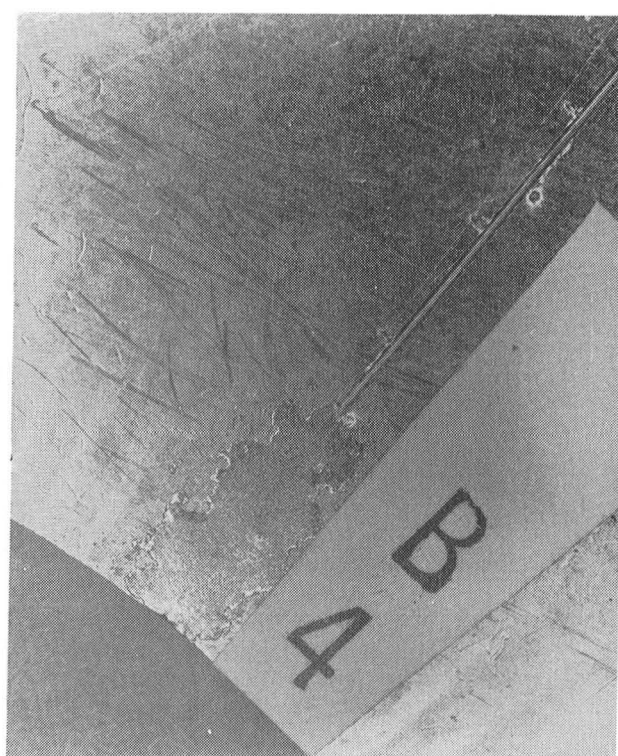
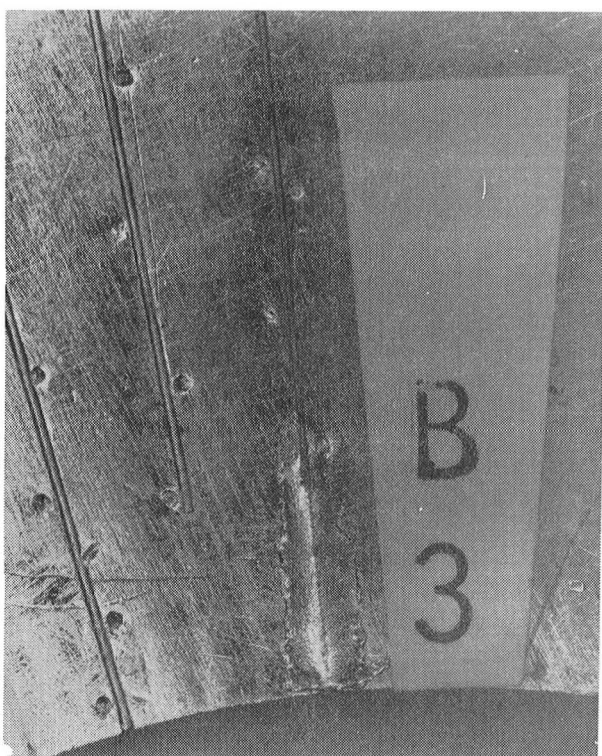
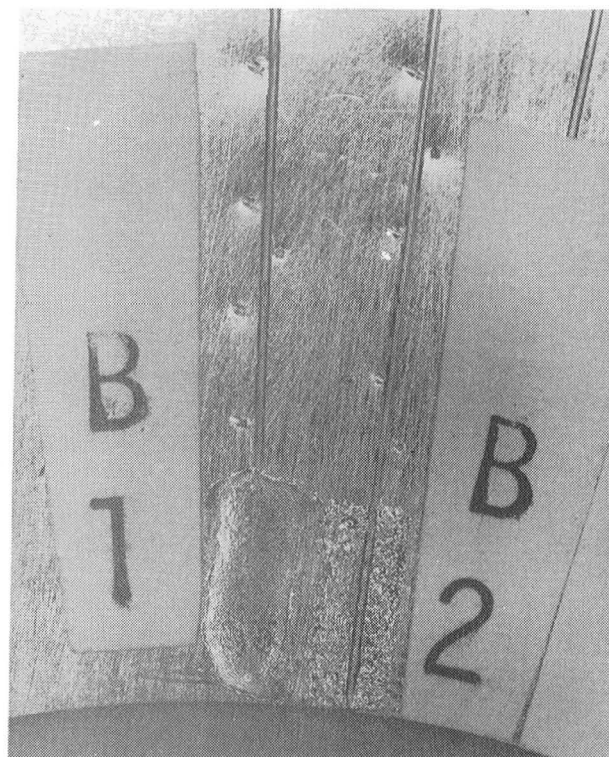
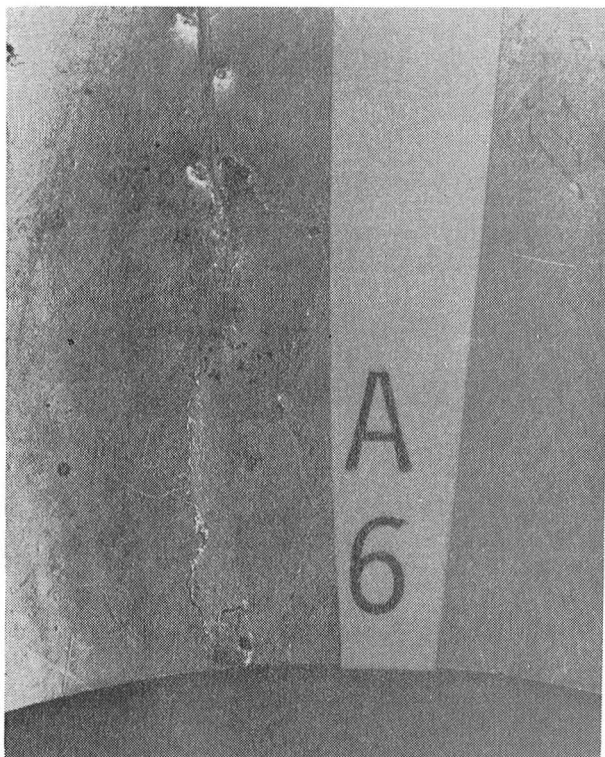


Figure 58. Thermocouple Installation

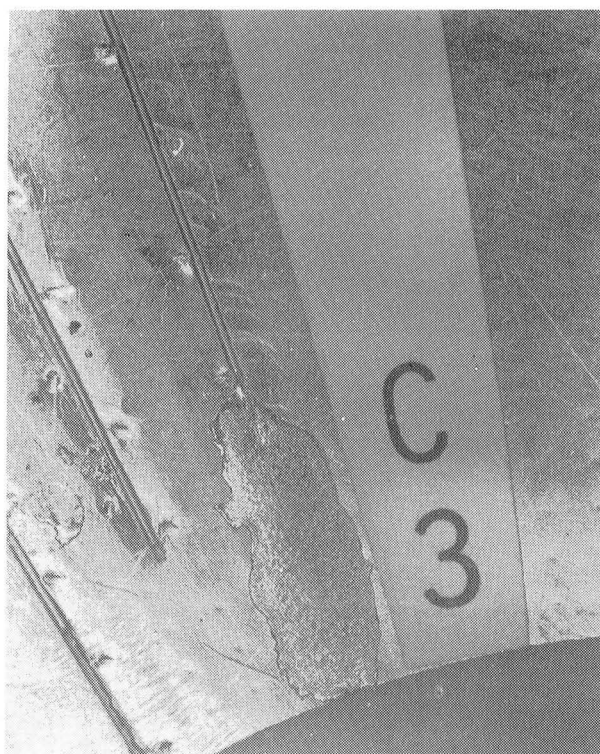
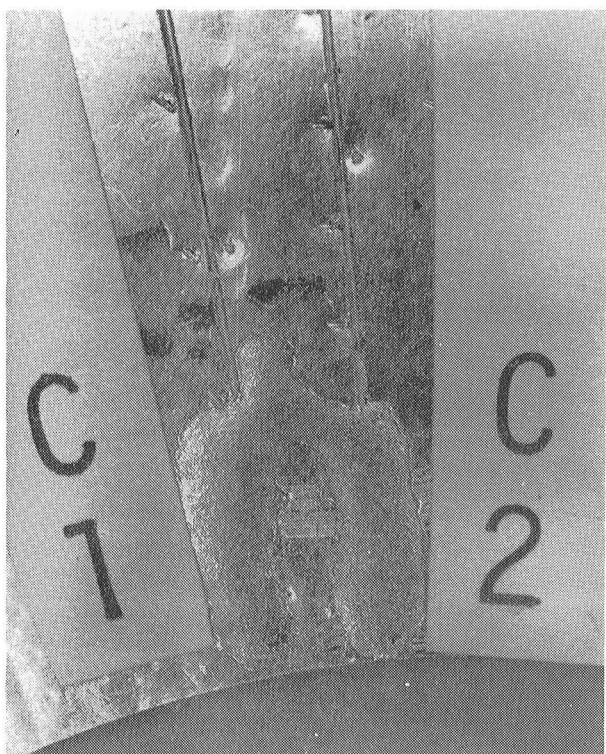
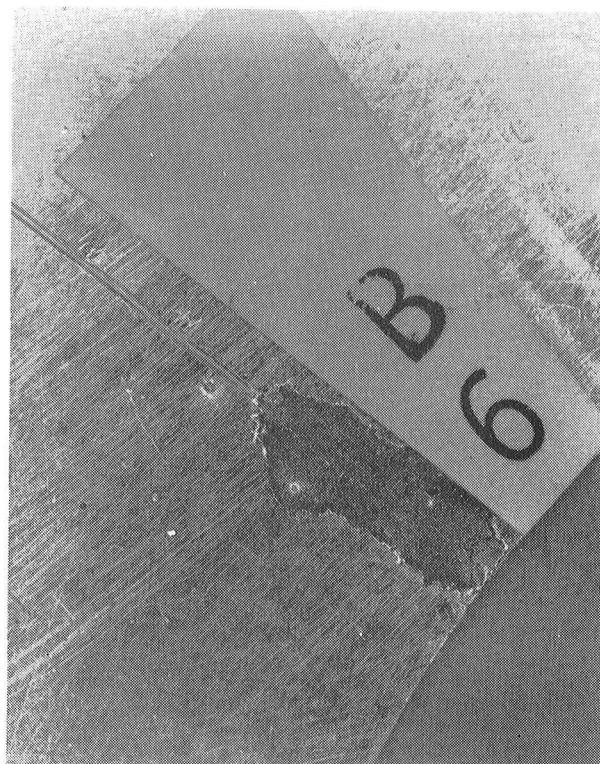
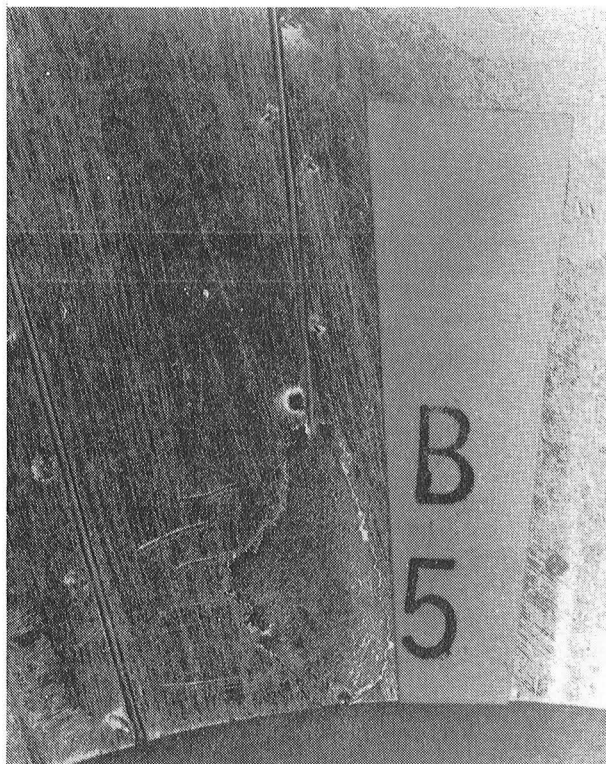


Figure 59. Thermocouple Installation



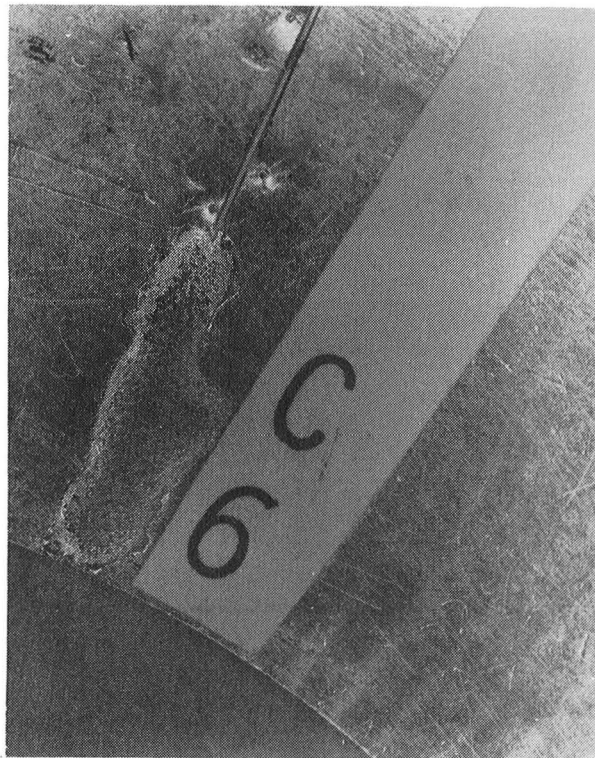
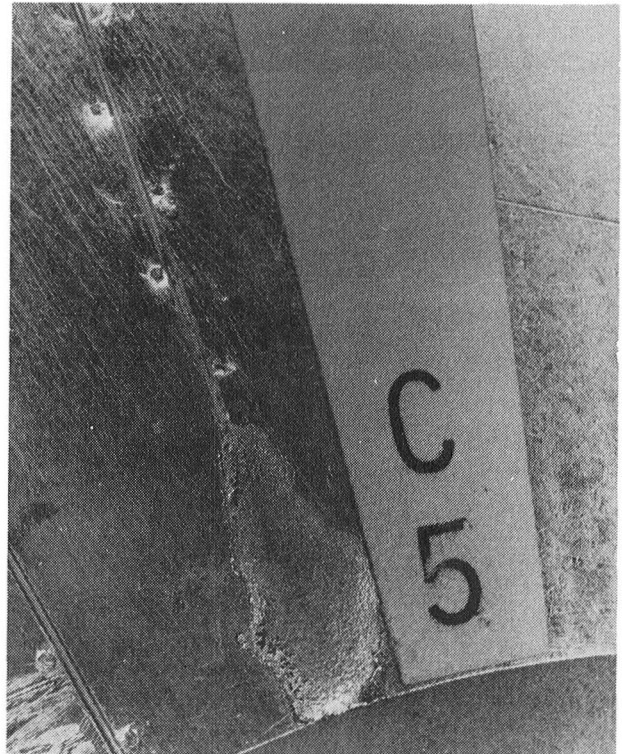
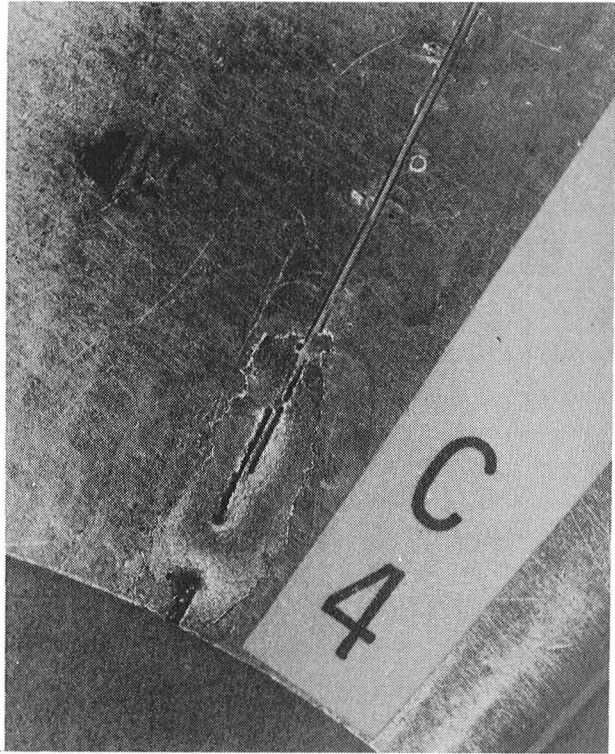


Figure 60. Thermocouple Installation



### III, E, Task IV - Thrust Chamber Testing (cont.)

between the thermocouples and the platelets and (2) reaction of the hydrogen transpiration coolant with unburned oxygen produced by a nonuniform injector flow distribution. Both of these anomalies are independent of the basic transpiration cooling concept.

In order to develop reliable transpiration cooling design information, it was necessary that these anomalies be corrected or their influence be measured. The ancillary testing utilized the existing thrust chamber hardware with new thermocouples. Particular attention was given during TC installation to achieving good thermal contact between the thermocouple junctions and platelets. Careful attention was also given to locating the TC junctions with the hot gas wall. The location of each junction was recorded.

To eliminate the influence of an exo-thermal reaction between the coolant and the free-stream gases, the ancillary hot fire testing included a test using helium gas for the transpirant in lieu of hydrogen. Since helium is nonreactive with oxygen, hydrogen or their products of combustion, the helium testing was intended to yield data that would permit a comparative analysis to be performed to determine the degree of transpirant hydrogen reactivity with the combustion gases.

#### b. Helium Cooling Analysis

Prior to the resumption of testing a parametric heat transfer analysis was performed to determine the amount of helium flow required to cool the transpiration section - see Figures 61 and 62. Calculations indicated that to keep the instrumentation platelets to a maximum of 900°F would require approximately .15 lbm/sec of ambient temperature helium. The required supply pressure was estimated at 1400 psia. Note that the required

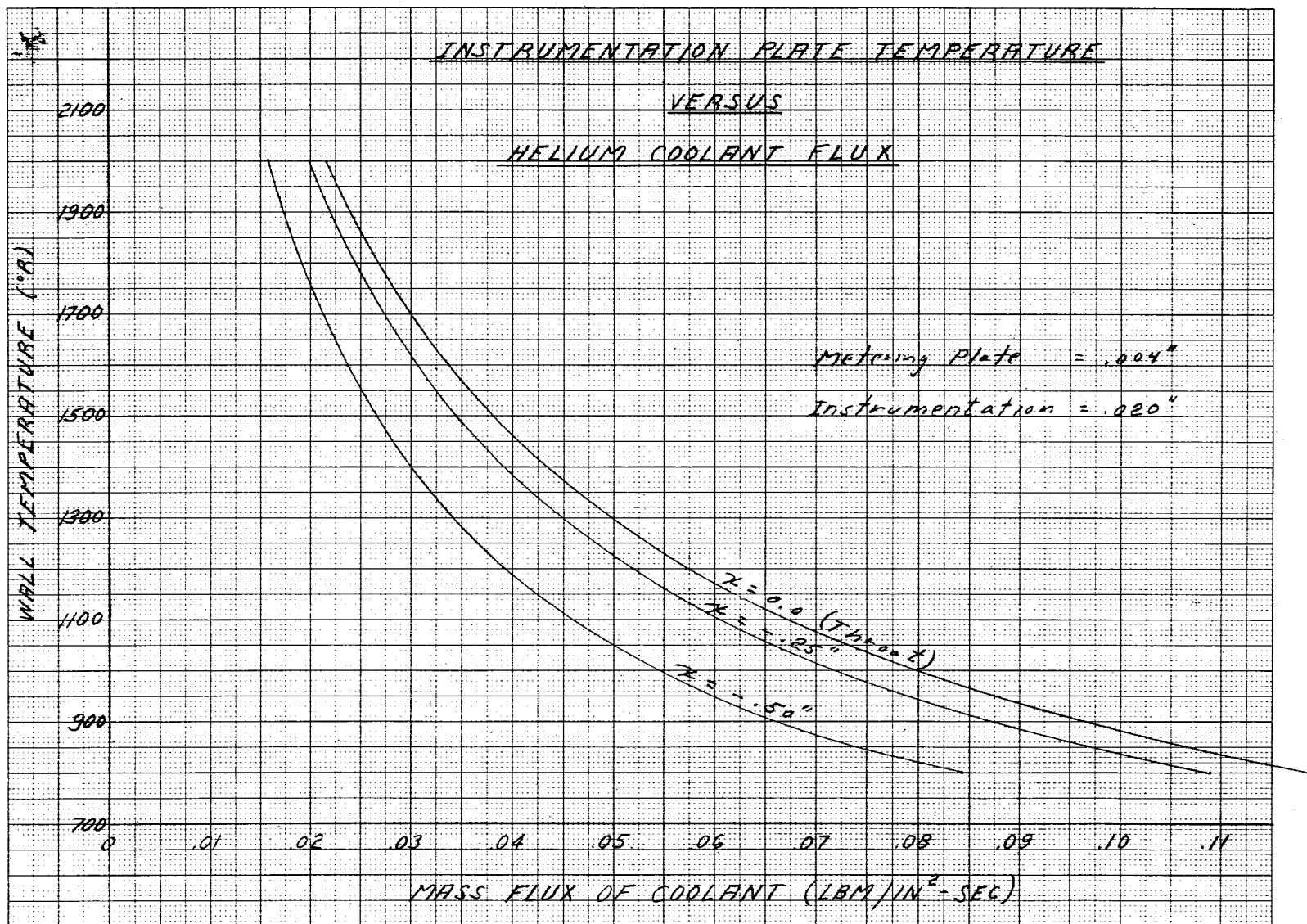


Figure 61. Instrumentation Plate Temperature Versus Helium Coolant Flux

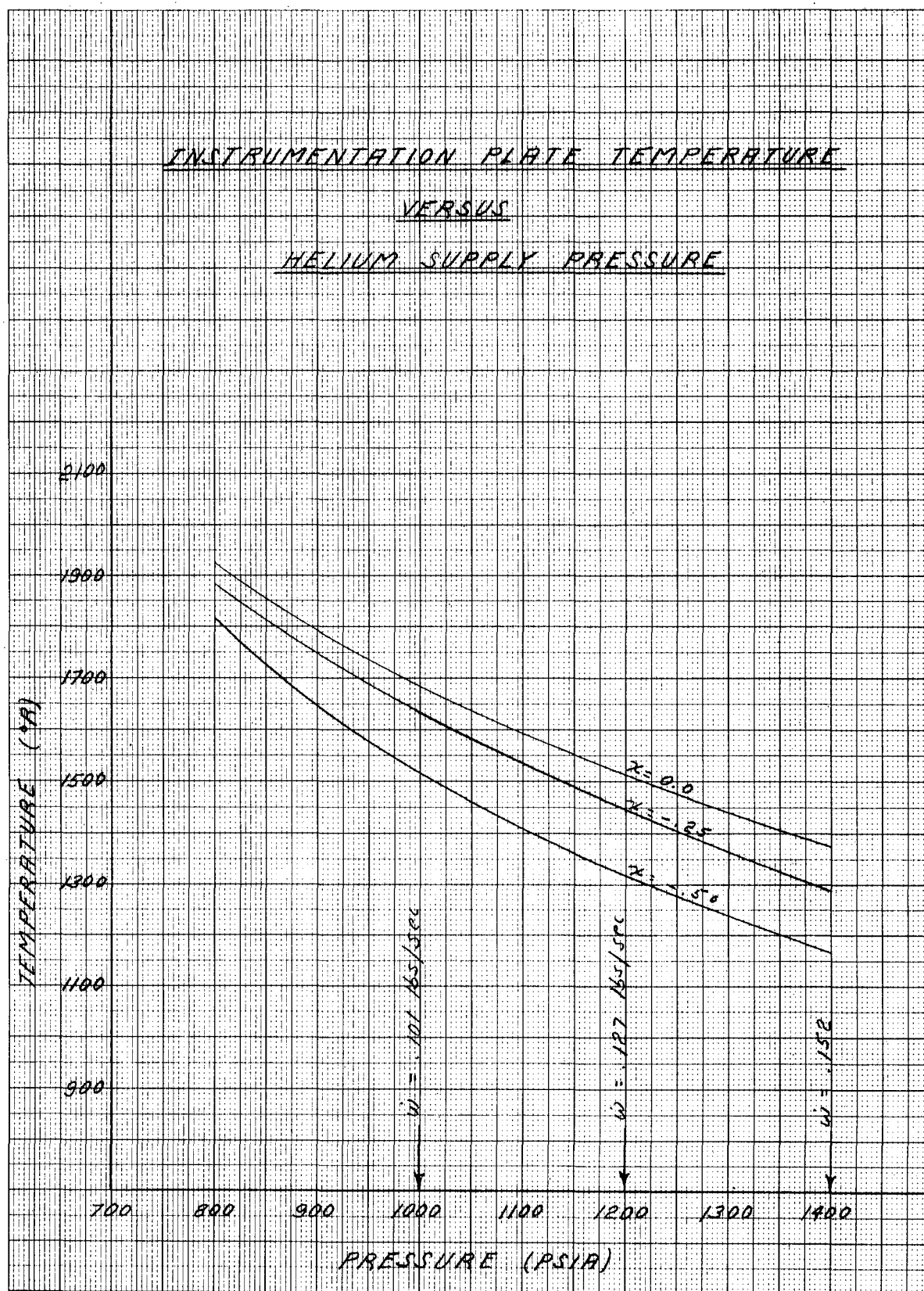


Figure 62. Instrumentation Plate Temperature Versus Helium Supply Pressure

### III, E, Task IV - thrust Chamber Testing (cont.)

helium mass flow rate is 2 to 4 times that of hydrogen. The reason is that although helium at operating pressure has 3.75 times the density of hydrogen, its specific heat is only 1/3 that of hydrogen.

Initially there was some concern that the higher flow rate requirement might cause an excessive coolant gas flow velocity creating blowing and/or turbulence in the free stream hot gas. However, a velocity analysis of the coolant flow indicates a maximum velocity in the metering slots of approximately 1000 fps and a corresponding exit velocity of 100 fps, which is considered acceptable. The helium exit velocity is, in fact, approximately the same as the hydrogen velocity during the previous testing.

#### c. Test Plan

The test article is shown in Figure 63 and a schematic diagram of the test system is shown in Figure 64. The basic test matrix is shown in Table XV and the pertinent operating conditions are shown in Table XVI.

The objective of the first test (cold flow with ambient  $\text{GN}_2$ ) was to assure that the transpirant flow passages have not undergone a significant change in geometry that would affect flow rate.

The objective of the second test, using helium as the transpirant, was to establish baseline cooling data against which to compare the hydrogen transpirant test results. An analytical assessment of the degree of hydrogen reactivity with the hot combustion gases will follow.

The next series of three tests were conducted using hydrogen as the transpirant. The tests progressed from a high hydrogen flow rate and

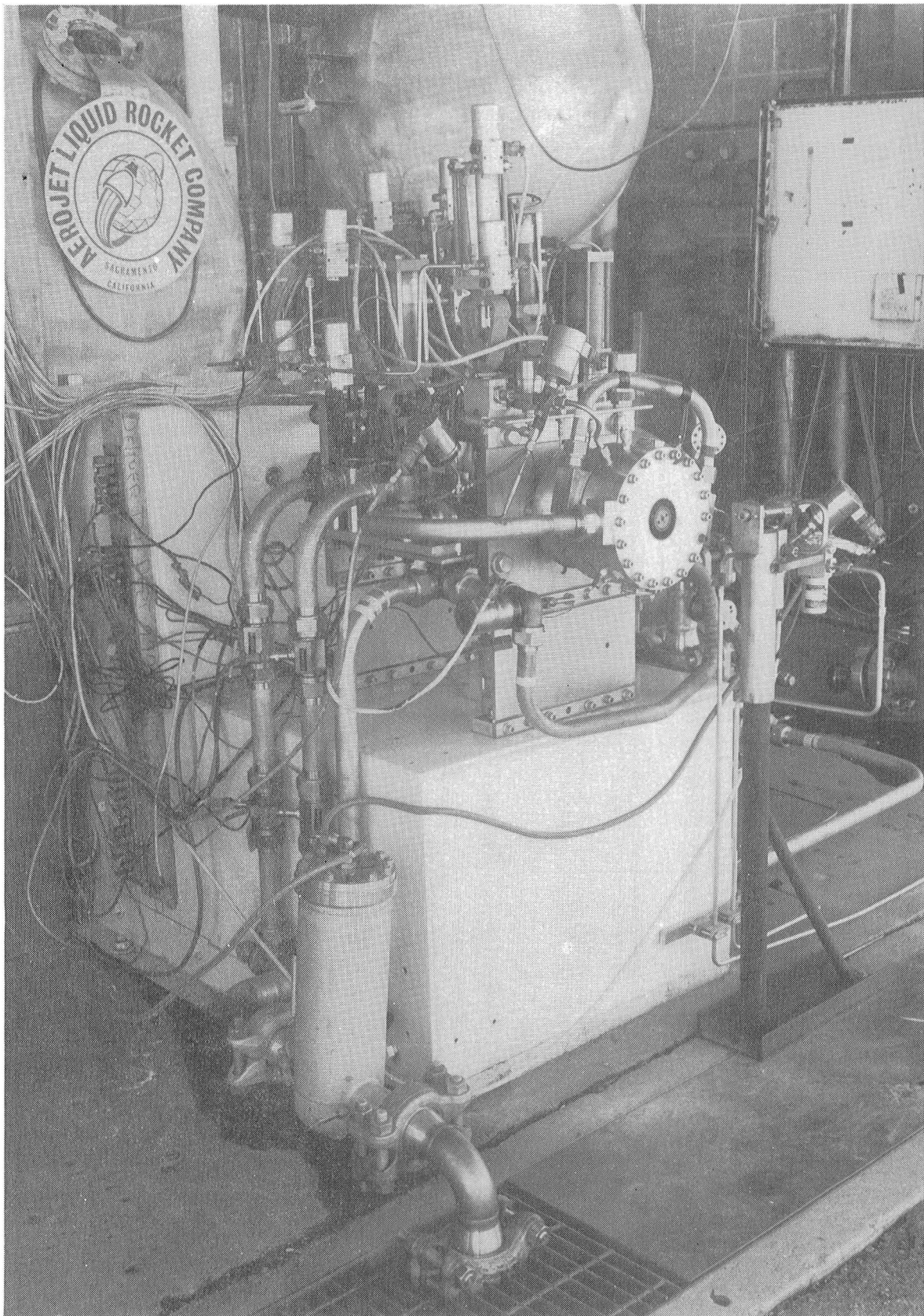


Figure 63. Trans-Regen Test Article

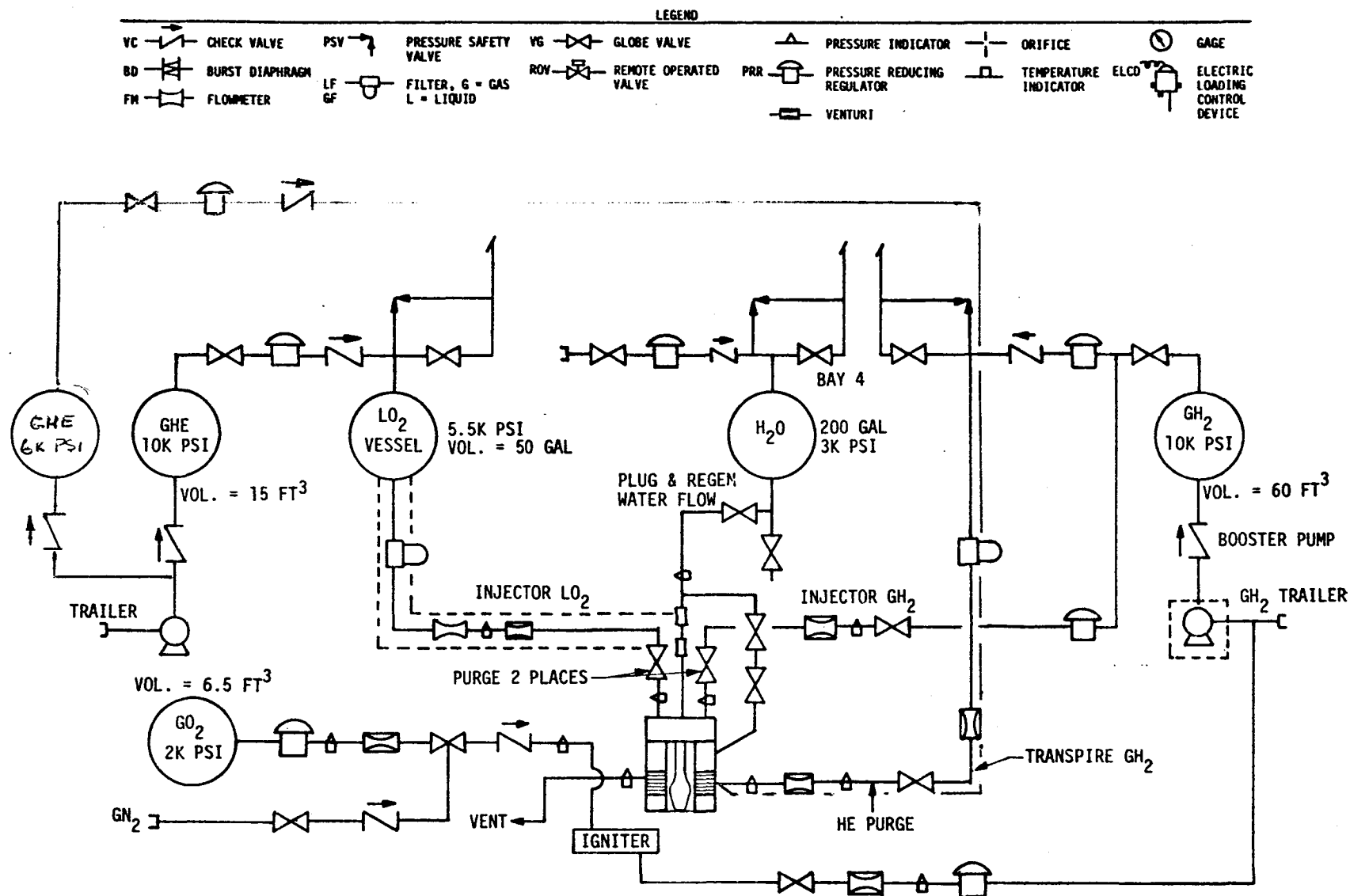


TABLE XV

## TEST MATRIX - ANCILLARY PROGRAM

Test	Coolant	<u>Transpiration Cooling</u>		Platelet Wall Temp. Objective (°F)	Remarks
		<u>Inlet Press.</u> (psia)	<u>Flow Rate (lb/sec)</u>		
1	Nitrogen	TBD	TBD	N/A	Cold flow check-out
2	Helium	1400	.152	900	Hot fire test, non-reactive coolant, high flow rate
3	Hydrogen	996	.0747	500	Hot fire test, reactive coolant, high flow rate
4	Hydrogen	748	.0496	700	Hot fire test, reactive coolant, medium flow rate
5	Hydrogen	627	.0359	900	Hot fire test, reactive coolant, low flow rate

General operating conditions shall be as specified in Table XVI. Nominal firing duration shall be 5 sec minimum.

TABLE XVI

TRANS-REGEN THRUST CHAMBER OPERATING CONDITIONS

Injector Propellants: Gas  $H_2$ /LOX\*

Injector Element Type: Coaxial

Nominal Mixture Ratio (O/F): 6.0

Nominal Chamber Pressure: 600 psia

Regenerative Coolant: Water at 1500 psia inlet pressure  
(Plug and Regen Chamber)

Transpiration Coolant: Gaseous  $H_2$  at 1500 psia maximum  
inlet pressure\*

Gaseous He at 1500 psia maximum  
inlet pressure

Maximum Hydrogen Flow Rate: 2.0 lb/sec

Nominal Water Coolant Flow Rate: 25 lb/sec

Nominal Injector  $GH_2$  Inlet Pressure = 1020 psia

Nominal Injector LOX Inlet Pressure = 650 psia

Nominal Injector Hydrogen Flow Rate = 0.67 lb/sec

Nominal Injector Oxygen Flow Rate = 4.0 lb/sec

\*Ambient inlet temperature hydrogen



### III, E, Task IV - thrust Chamber Testing (cont.)

a predicted hot gas-side platelet wall temperature of 500°F to a low hydrogen coolant flow rate and a wall temperature of 900°F.

In each of the hot fire tests the following parameters were measured and recorded:

- Thrust
- Propellant Flow Rates
- Coolant Flow Rates
- Coolant Inlet and Outlet Temperatures
- Transpiration Coolant Inlet Pressure
- Chamber Wall Temperatures (22 places)
- Feed System Pressures
- Plug Cooling Water Thrust
- Chamber Pressure

#### Hot Fire Sequence

The general hot fire sequence was as follows:

1. Chamber and plug cooling water on
2. Pre-test thrust calibration
3. Transpirant gas on
4. Open fuel and oxidizer valves
5. F.S. 1, igniter on  
(run duration approx. 5 sec)
6. F.S. 2, close fuel and oxidizer valves
7. Transpirant gas off
8. Post-test thrust calibration
9. Cooling water off

Test kill limits are shown in Table XVII.

TABLE XVII  
TRANS-REGEN  
OPERATING LEVELS AND KILL LIMITS

Test No.	Parameter	Nom. Value	Range	
			Lower	Upper
2-5	Coolant Water Flow (lb/sec)	25	22*	28
2-5	Water Inlet Pressure (psia)	1500	1400	1600
2	Helium Inlet Pressure (psia)	1400	1350	1450
2	Helium Flow Rate (lb/sec)	0.152	0.145*	0.160
3	Hydrogen Flow Rate (lb/sec)	0.0747	0.0720	0.0774
4	Hydrogen Flow Rate	0.0496	0.0478	0.0514
5	Hydrogen Flow Rate	0.0359	0.0346	0.0372
3	Hydrogen Inlet Press. (psia)	996	960*	1032
4	Hydrogen Inlet Press.	748	721*	775
5	Hydrogen Inlet Press.	627	605*	649
2-5	LOX Injector Inlet Press. (psia)	650	630	670
2-5	LOX Injector Flow Rate (lb/sec)	4.00	3.88	4.12
2-5	GH <sub>2</sub> Injector Inlet Press. (psia)	1020	990	1050
2-5	GH <sub>2</sub> Injector Flow Rate (lb/sec)	0.67	0.65	0.69
2-5	Chamber Pressure (psia)	600	570*	630*
2	Wall Temperature A1 - A6 (°F)	710	600	1400*
	B1 - B6	830		
	C1 - C6	910		
3	Wall Temperature A1 - A6 (°F)	400	350	1400*
	B1 - B6	450		
	C1 - C6	500		
4	Wall Temperature A1 - A6 (°F)	550	500	1400*
	B1 - B6	625		
	C1 - C6	700		
5	Wall Temperature A1 - A6 (°F)	700	650	1400*
	B1 - B6	800		
	C1 - C6	900		

\*Indicates Kill Limit (6 total on any 1 test)

### III, E, Task IV - thrust Chamber Testing (cont.)

#### d. Hot Fire Testing

Hot fire testing of the Trans-Regen thrust chamber was completed in early May, 1979. The testing followed the sequence shown in Table XV.

##### (1) Check-Out Tests

Prior to hot fire testing, a series of test facility and engine tests was performed. These tests included instrumentation check-out and calibration, automatic sequence verification, chamber and plug cooling water flow, and igniter operation.

##### (2) Test No. 108 - Helium Coolant

The first test, No. 108, was attempted on 1 May 1979. It was aborted prior to ignition due to insufficient chamber cooling water flow. A kill limit had been set at 10.00 lbm/sec and actual flow only reached 9.98 lbm/sec. The problem was discovered to be insufficient GN<sub>2</sub> pressurant flow rate to the water supply tank. The GN<sub>2</sub> supply system was modified to reduce line losses and the supply pressure was increased from 2500 to 2600 psia.

##### (3) Test No. 109 - Helium Coolant

This test also aborted prior to ignition due to excessive helium coolant inlet pressure. Original calibration tests had indicated that a supply set pressure of approximately 1950 psia was required to achieve the desired coolant inlet operating pressure of 1400 psia. However, the original helium supply regulator had to be changed out due to

### III, E, Task IV - thrust Chamber Testing (cont.)

leakage and the replacement regulator supplied an operating pressure of 1940 psia at a set pressure of 1960 psia. Investigation showed that the replacement regulator had a much greater capacity (volumetric flow capability) than the original regulator.

#### (4) Test No. 110 - Helium Coolant

This test underwent successful ignition but tripped out prior to steady state due to a reverse polarity thermocouple. As soon as the thermocouple (TC-B5 in the transpiration section) saw the wall temperature beginning to rise, its reading dropped from ambient (pre-test calibration) to negative. The range for these thermocouples had been set up 0 to 1400°F and the computer identified the negative reading as being off scale and initiated an automatic shutdown.

#### (5) Test No. 111 - Helium Coolant

The first successful hot fire test was conducted on May 7, 1979, using helium as the transpiration coolant. The test ran full duration with no anomalies. Wall temperatures were as predicted (800-900°F) and a visual inspection of the chamber after the test showed no abnormal conditions. It was noted, however, that there was a blue streak in the chamber bore extending across the transpiration platelet section at approximately 9:30 (looking toward the injector with 12:00 being straight up).

The computer test data for all of the successful trans-regen test in this second series of tests are contained in Appendix C.

### III, E, Task IV - thrust Chamber Testing (cont.)

#### (6) Test No. 112 - Hydrogen Coolant

Prior to this test some minor test facility modifications were required to change the coolant supply from helium to hydrogen. A hydrogen cooled test was attempted on 9 May 1979. The test was aborted due to an igniter malfunction.

#### (7) Test No. 113 - Hydrogen Coolant

This test ran successfully as planned although the transpiration section wall temperatures were on the order of 900°F versus a predicted 500°F. This test repeated the operating conditions of the earlier hydrogen cooling tests with a coolant flow rate of .075 lbm/sec.

A visual inspection of the chamber revealed that the blue streak noted on Test No. 111 was gone and that the entire copper transpiration platelet had been brightened (hydrogen bright anneal). The platelet stack appeared to be in excellent condition although the plug and regen chamber sections were heavily streaked.

Due to the excessive wall temperatures experienced on this test, a decision was made to modify the test plan. The revised test matrix is shown in Table XVIII.

#### (8) Test 114 - Hydrogen Coolant

This test was aborted due to spurious data system signals.

TABLE XVIII

## TEST MATRIX - REVISED

<u>Test No.</u>	<u>Transpiration Cooling</u>		<u>Platelet Wall Temp Objective (°F)</u>	<u>Remarks</u>
	<u>Coolant</u>	<u>Flow Rate (lb/sec)</u>		
111	Helium	0.155	900	Non-reactive coolant-high flow rate
113	Hydrogen	0.075	800*	Reactive coolant - high flow rate
115	Hydrogen	0.060	1000*	Reactive coolant - medium flow rate
117	Hydrogen	0.045	1200*	Reactive coolant - low flow rate

General operating conditions as specified in Table XVI. Nominal firing duration of 5 sec.

\*Based on the results of Test 113.

### III, E, Task IV - thrust Chamber Testing (cont.)

#### (9) Test No. 115 - Hydrogen Coolant

On this test the hydrogen transpiration coolant flow rate was reduced to .060 lbm/sec. As expected, the hot gas wall temperature increased to approximately 1000°F. After the test it was noted that the transpiration platelet stack I.D. had shrunk slightly producing a step visually estimated at .005 inches between the platelet stack and the regen chamber.

The ALRC Stress Department explained this phenomenon as a "ratcheting" effect. The O.D. of the stack is near ambient while the I.D. is very hot. Since the stack is constrained axially, the only way it can grow to relieve the thermal strain is inward, thus decreasing the I.D. The inward movement of the stack during the firing is then partially retained after cool down by the high clamping load of the chamber on the stack (a ratcheting effect).

#### (10) Test No. 116 - Hydrogen Coolant

On this test the hydrogen transpiration coolant flow rate was further reduced to .045 lbm/sec. A premature shutdown occurred due to low coolant inlet pressure. A minimum kill limit of 650 psia was in effect and the actual pressure was 640 psia. the kill limit was reset at 600 psia prior to the next test.

#### (11) Test No. 117 - Hydrogen Coolant

This was a repeat of the previous test conditions. The decreased coolant flow rate of .045 lbm/sec caused the wall temperature to increase to approximately 1200°F. A visual inspection after the test

### III, E, Task IV - thrust Chamber Testing (cont.)

revealed that the transpiration platelet stack had experienced some minor erosion in one spot at the 6:00 position. This concluded the hydrogen testing.

#### e. Post Test Inspection

After the completion of testing, the chamber was removed from the stand to facilitate the visual inspection and photographing of the post test condition. The depth of erosion in the damaged area noted on the last test was not measurable. the roughened surface is approximately 1/2 inch circumferentially by 1/4 inch axially, located at approximately 6:00 between the mid and throat station instrumentation platelets, see Figure 65. The slight surface erosion noted would not affect performance or reusability.



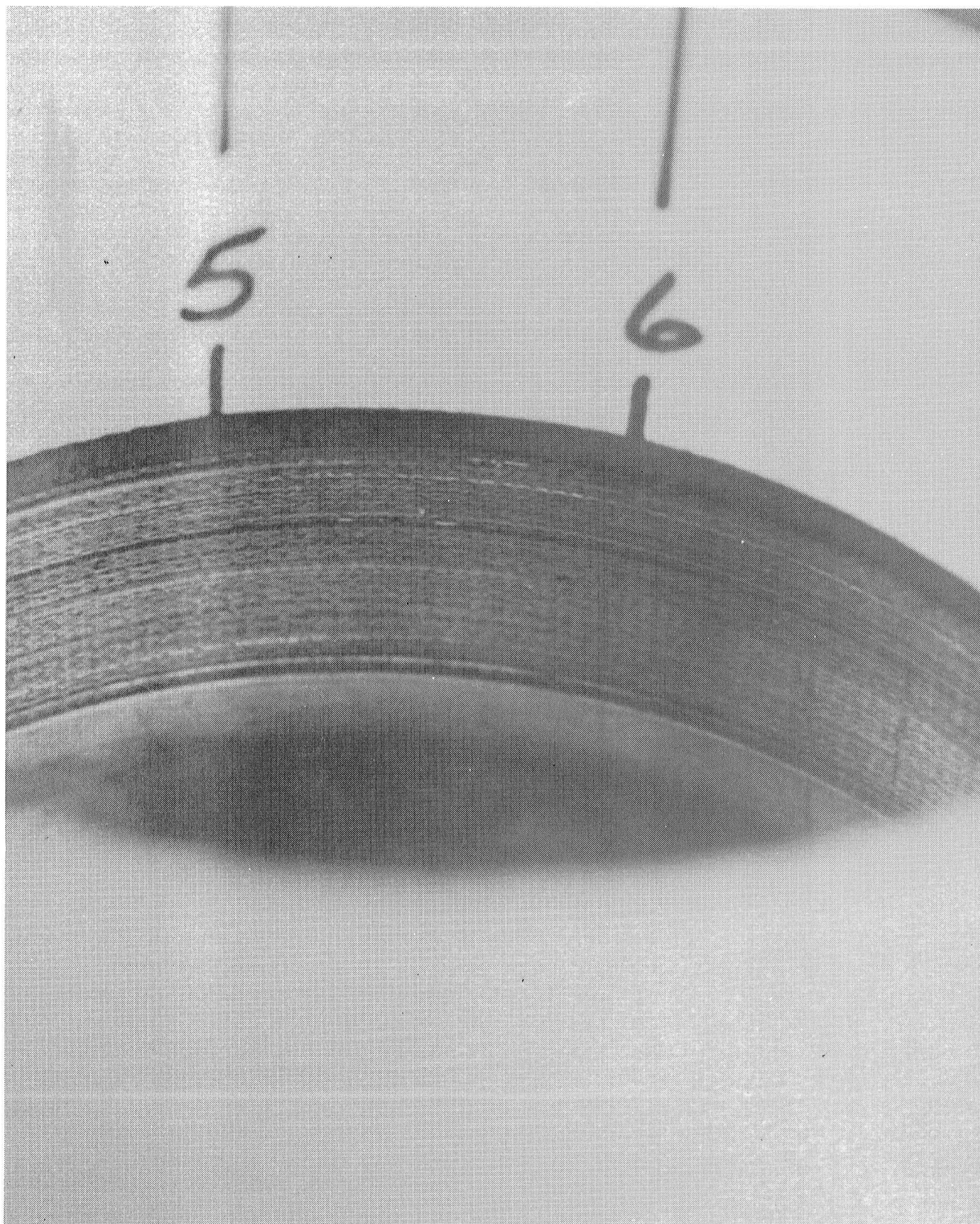


Figure 65. Minor Surface Erosion in Transpiration Section

### III, Discussion (cont.)

#### F. TASK V - DATA ANALYSIS

##### 1. Objective

This task consists of the analyses, correlation and evaluation of heat transfer data and engine performance loss due to transpiration cooling. The heat transfer data analysis consists of two parts: transpiration cooled wall temperature data analyses and regenerative cooled wall temperature data analysis. The regenerative cooling data is used to evaluate the downstream film cooling effects produced by the transpiration coolant injected upstream of the throat.

##### 2. Thermal Data Analysis

The thermal data from tests 111 through 117 are summarized in Table XIX along with the earlier data from tests 105 through 107. The values shown are the maximum hot gas wall temperatures measured during each of the tests. The thermocouples were located in circumferential planes designated A, B, C, D. The A, B and C planes were made up of instrumented platelets in the transpiration cooled section of the chamber. The 'A' plane was located approximately 0.5 inches above the throat. The 'B' plane was approximately 0.25 inches above the throat. The 'C' plane was approximately at the throat. The 'D' plane was below the throat in the regeneratively cooled divergent chamber section.

The thermal model used in this program coupled a fin model to account for the heat conducted through the platelets and into the coolant with a blowing or blockage model to account for hot gas side boundary layer effects. The blockage model was based on uniform blowing and did not include the affect of coolant carryover.

TABLE XIX

## TRANS-REGEN THERMAL DATA

## Transpiration-Regenerative Cooled Rocket Chamber Test Program

Test Series 2KB6-704-105 Through 117

Test No.	Coolant	Axial Posit.	Circumferential Location of Thermocouple																							
			12:00	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30
105	H <sub>2</sub> .075 lbs/sec	A B C D	1245			835 533 430	(135)							451	1076 875			645 906 830 838								410
106	H <sub>2</sub> .075	A B C D	1280			833 550 432	(151)							462	1230 940			669 862 806 840								426
107	H <sub>2</sub> .075	A B C D	(454)							509	1410 1060			1080 1005 925							445		1460			1132 667 522
111	He .155	A B C D				510	902 860 1005 <sup>1</sup>			630				484				872 445x 720			785					(785 458
113	H <sub>2</sub> .075	A B C D				525	845 898 1200 <sup>1</sup>			740				489				898 420x 812			770					(860 505
115	H <sub>2</sub> .060	A B C D				523	920 1210 1360 <sup>1</sup>			830				535				1080 495x 1020			940					(1000 473
117	H <sub>2</sub> .045	A B C D				545	985 1370 1515 <sup>1</sup>			1028				540				1250 590x 1170			1130					(1153 485

## KEY:

A is upstream platelet  
B is mid-stack platelet  
C is throat platelet  
D is aft regen divergent section

( ) denotes interior thermocouple  
x erroneous measurement  
1. questionable reading - reversed polarity on T.C.

### III, F, Task V - Data Analysis (cont.)

The deliberate omission of the effect of coolant carryover was intended to provide a degree of conservatism to the critical throat region wall temperatures. In other words, the actual wall temperatures at the throat would be expected to be somewhat less than predicted due to the additional film cooling.

While the measured hot gas wall temperatures were in general all higher than predicted, the 'C' plane (throat) temperatures tended to be closer to the predicted temperature than the forward A and B plane temperatures.

In fact the lowest recorded temperatures for helium coolant were in the highest heat flux area at the throat. It is apparent that including the effects of coolant carryover in the thermal models would significantly improve coolant utilization, i.e., the coolant mass flux could be redistributed to increase the flow in the forward end and decrease the flow in the aft end.

#### a. Helium Coolant

Test 111 with helium transpirant yielded wall temperatures which were reasonably close to that predicted, see Figures 66 through 69. Note that the predicted wall temperatures in the transpirant section ranged from 700°F in the forward (A) plane to 900°F in the aft (C) throat plane. The higher predicted temperature in the C plane is due to the higher incident heat flux. Note also that the actual measured temperatures averaged approximately 850°F (vs 700°F predicted) in the forward plane and approximately 710°F (vs 900°F predicted) in the throat plane, see Figure 70.

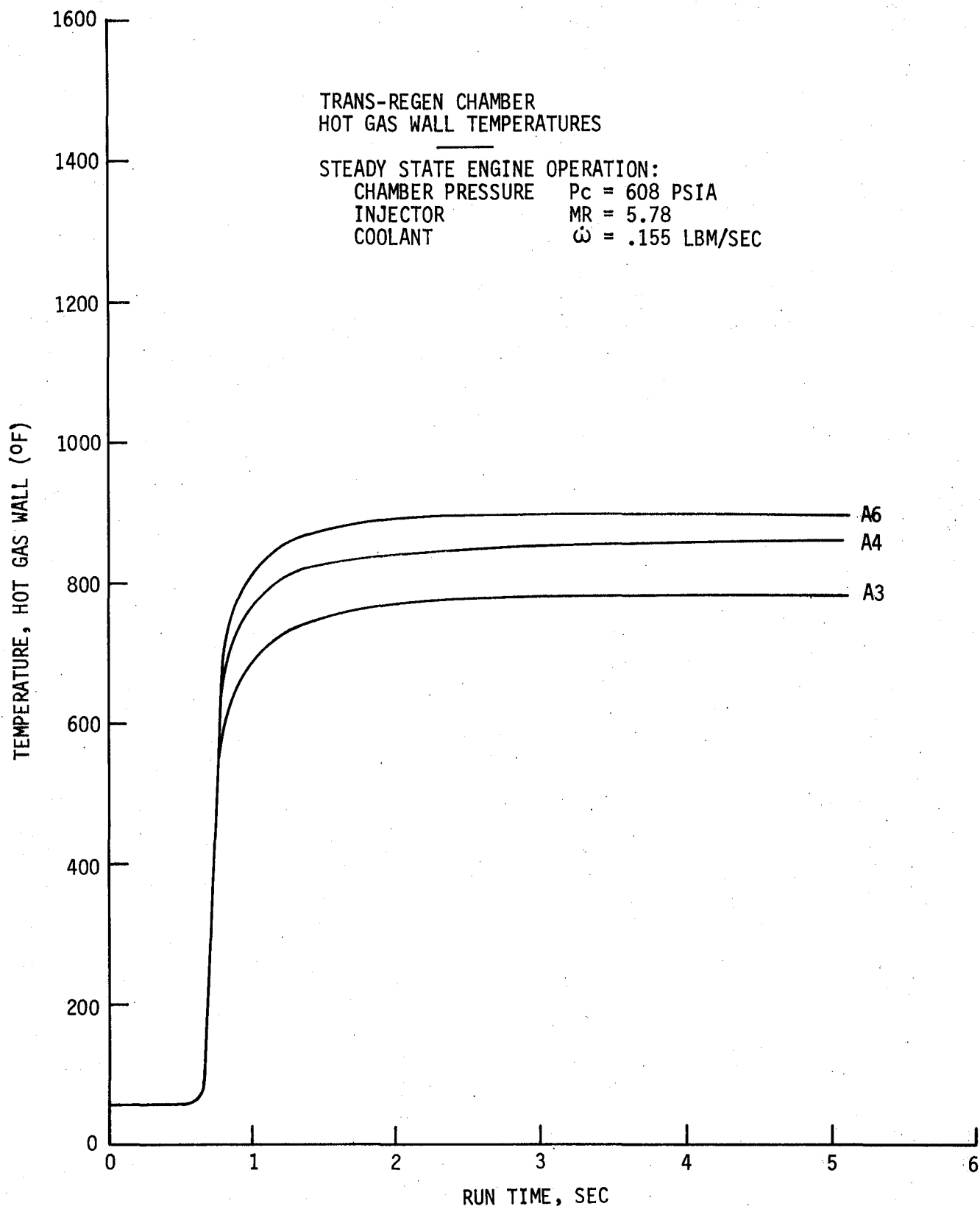


Figure 66. Transpiration Wall Temperature - A Plane, Helium Coolant, Test 111

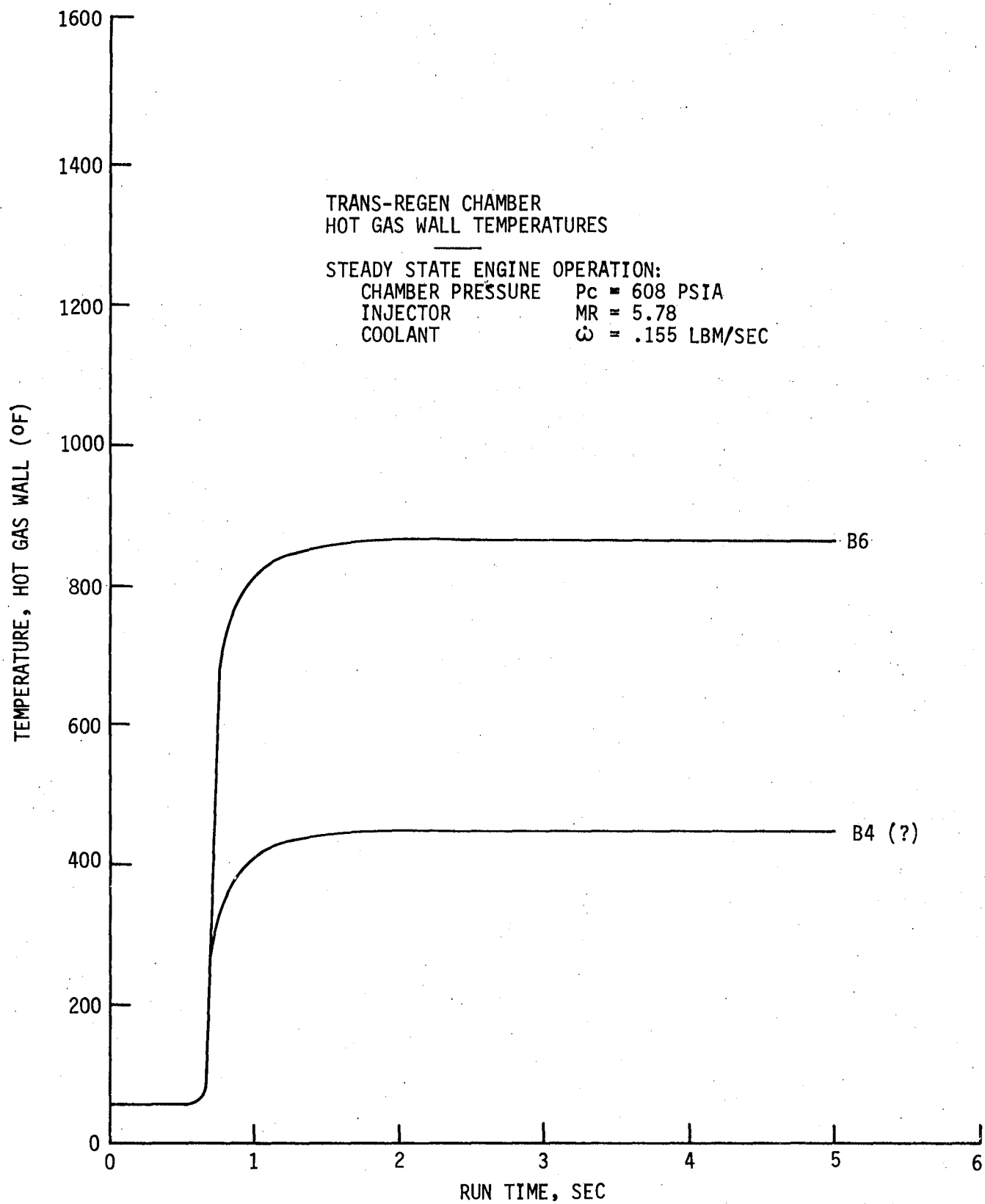


Figure 67. Transpiration Wall Temperature - B Plane, Helium Coolant, Test 111

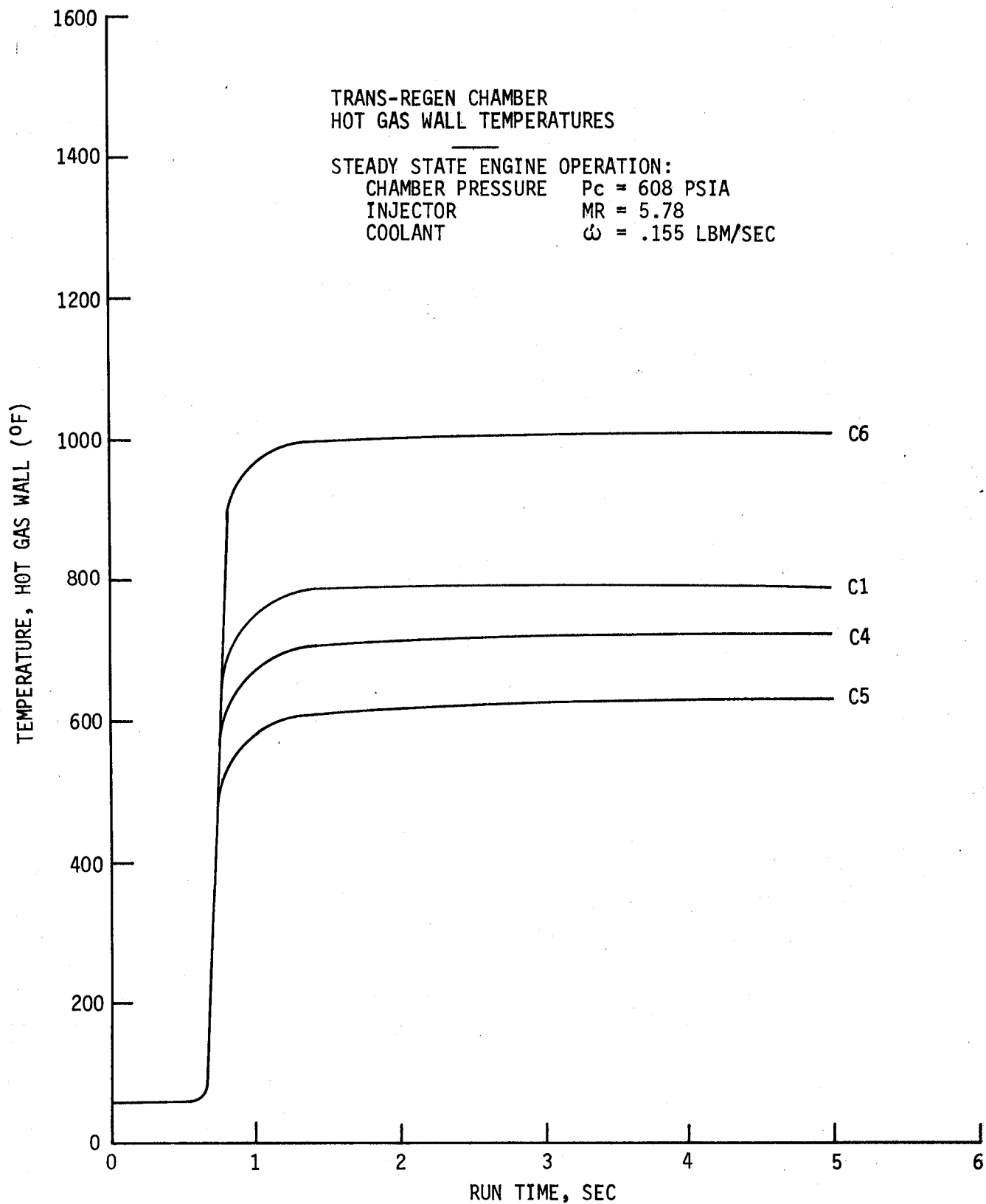


Figure 68. Transpiration Wall Temperature - C Plane, Helium Coolant, Test 111

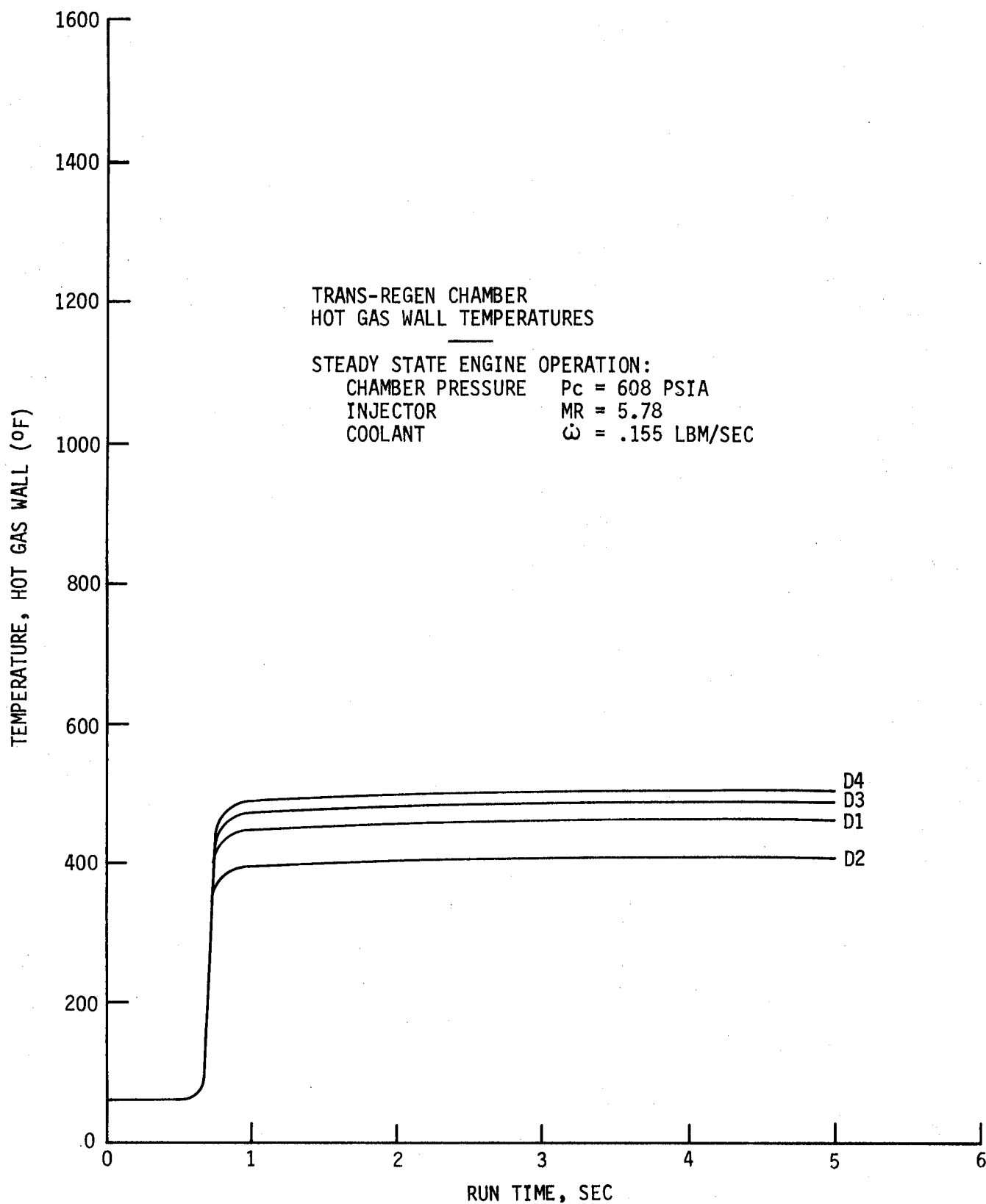


Figure 69. Regenerative Wall Temperature - D Plane, Helium Coolant, Test 111



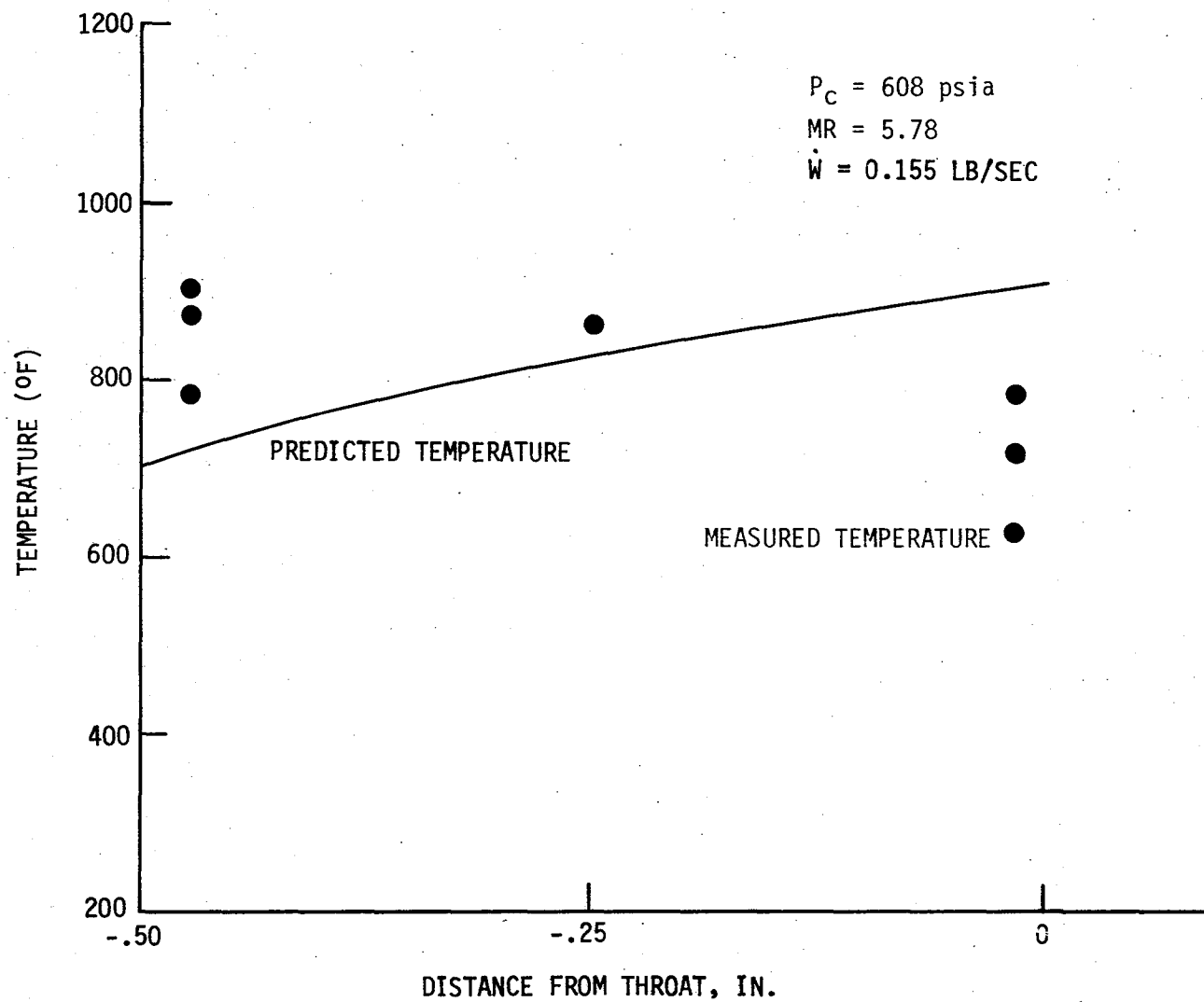


Figure 70. Measured Wall Temperature versus Predicted - Helium Coolant

### III, F, Task V - Data Analysis (cont.)

Apparently there is a significant amount of "film cooling carryover". The transpiration coolant from the forward part of the platelet stack behaves like film cooling after it leaves the wall, thereby providing a degree of thermal protection to the downstream platelets.

#### b. Hydrogen Coolant

Test No. 113 was intended to replicate the earlier hydrogen tests (104, 105 and 106). The early tests were run at a chamber pressure of 600 to 610 psia, an injector mixture ratio of 5.78 to 5.84, and a hydrogen coolant flow rate of approximately .075 lbm/sec. Test No. 113 was run at a chamber pressure of 593 psia, an injector mixture ratio of 5.74, and a hydrogen coolant flow rate of .075 lbm/sec.

It is apparent that the temperatures measured during test 113 are not significantly lower than those of the earlier trans-regen test 105, see Figure 71. A total of four tests were run at the same operating conditions - tests 105, 106, 107 and 113. However, on the early test series, which included tests 105, 106 and 107, the temperature readings went progressively higher, as evident on Figure 71, indicating a deterioration of the thermocouple to platelet contact. As such, the thermal data from tests 106 and 107 are probably not representative.

The hot gas wall temperatures on test 113 are slightly lower and better behaved (more consistent) than the earlier data, which indicates that the thermocouple installation was probably better. However, the measured temperatures still remain significantly different from the predicted temperatures, see also Figures 72 through 75.

Note on Figure 73 that temperature B4 is indicated as being questionable. Thermocouple B4 read abnormally low on all tests and

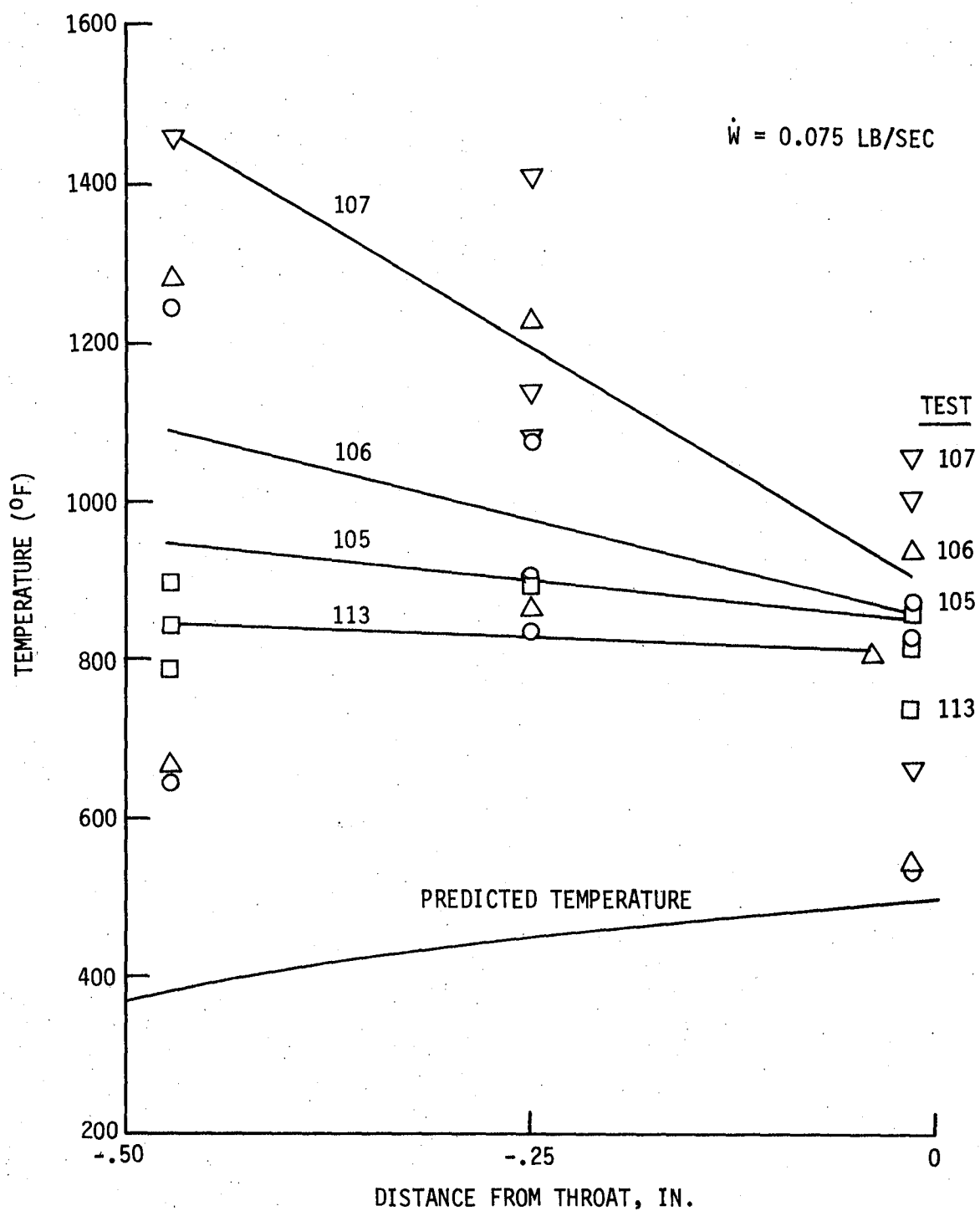


Figure 71. Actual versus Predicted Wall Temperatures - Hydrogen Coolant

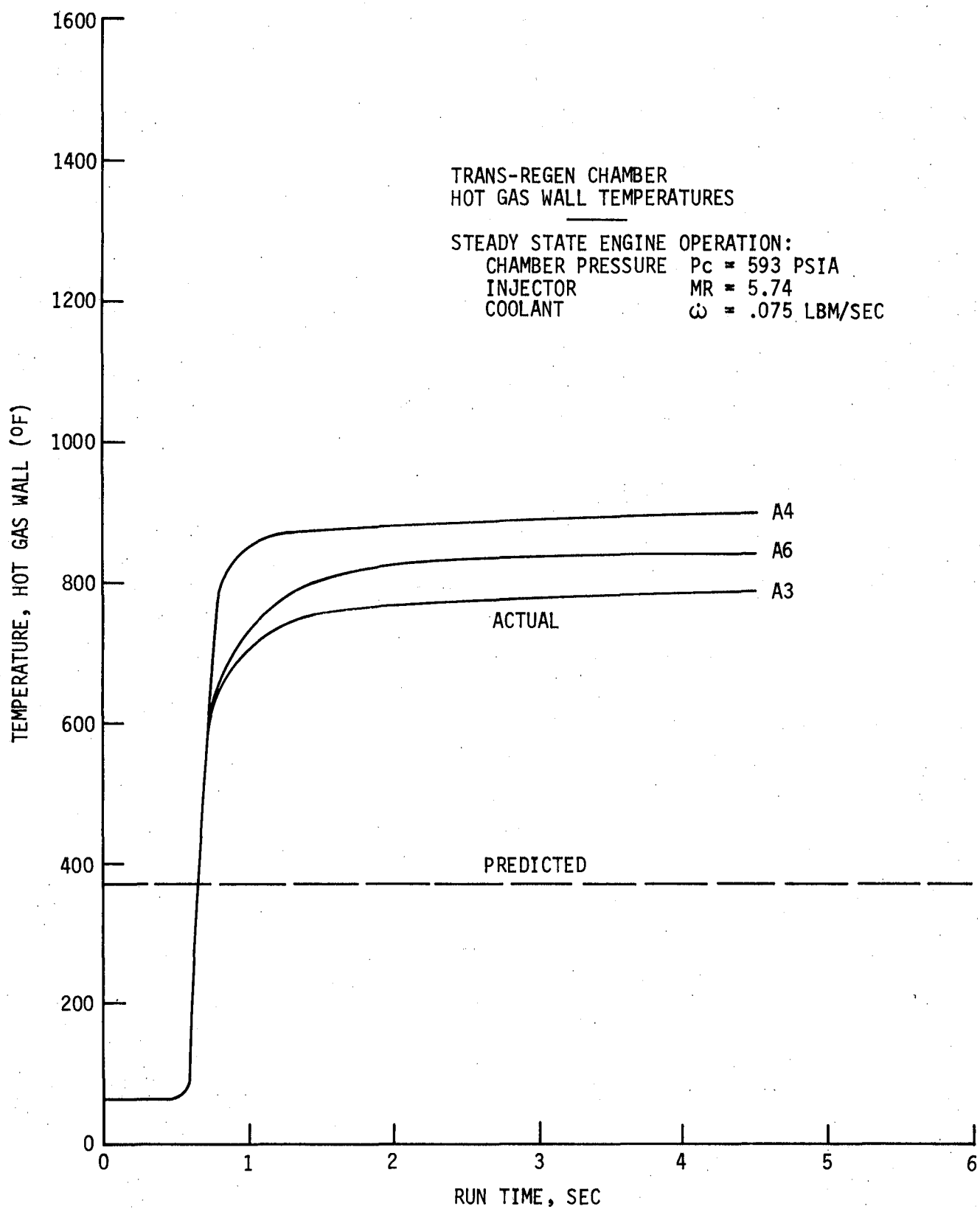


Figure 72. Transpiration Wall Temperature - A Plane, Hydrogen Coolant, Test 113

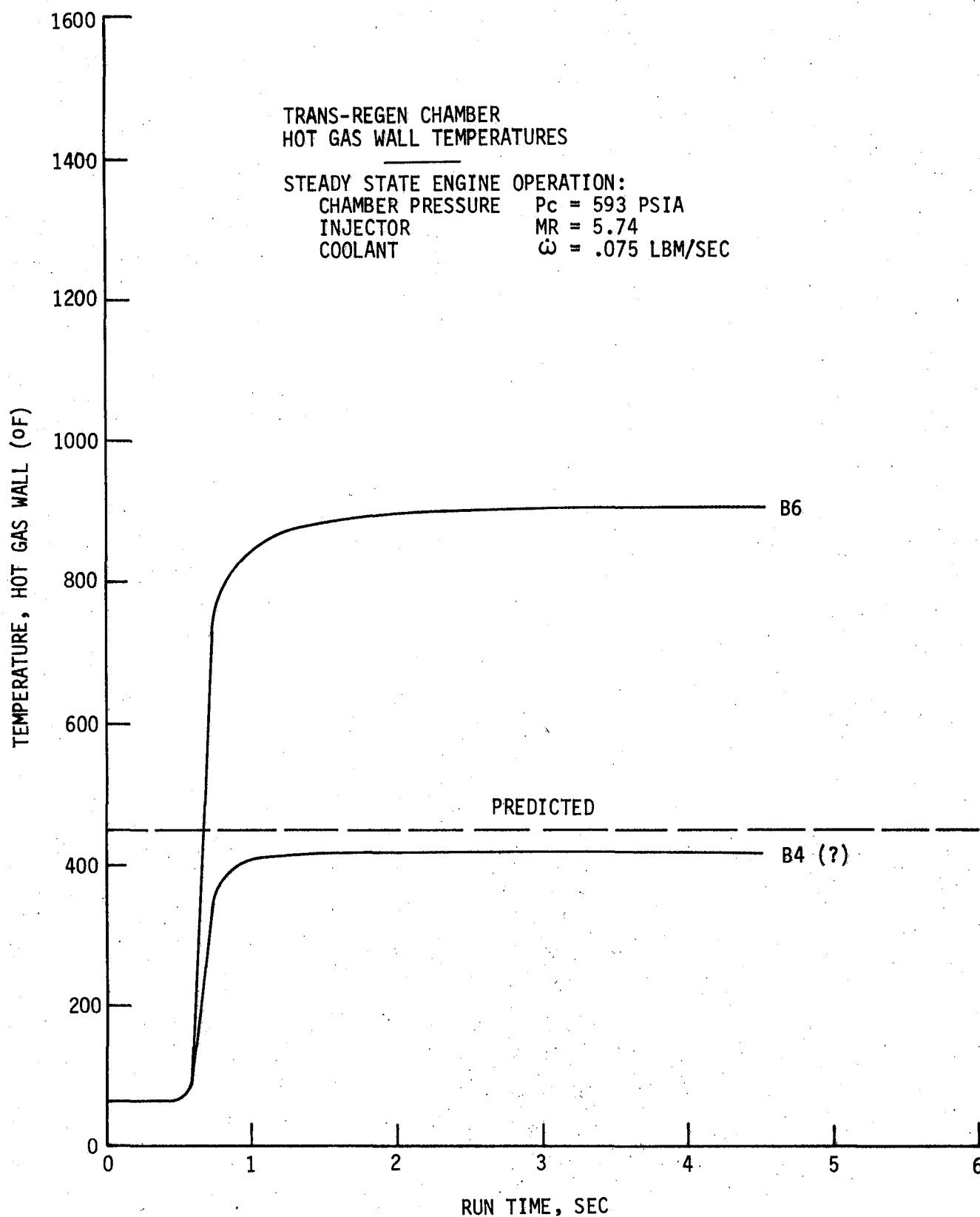


Figure 73. Transpiration Wall Temperature - B Plane, Hydrogen Coolant, Test 113

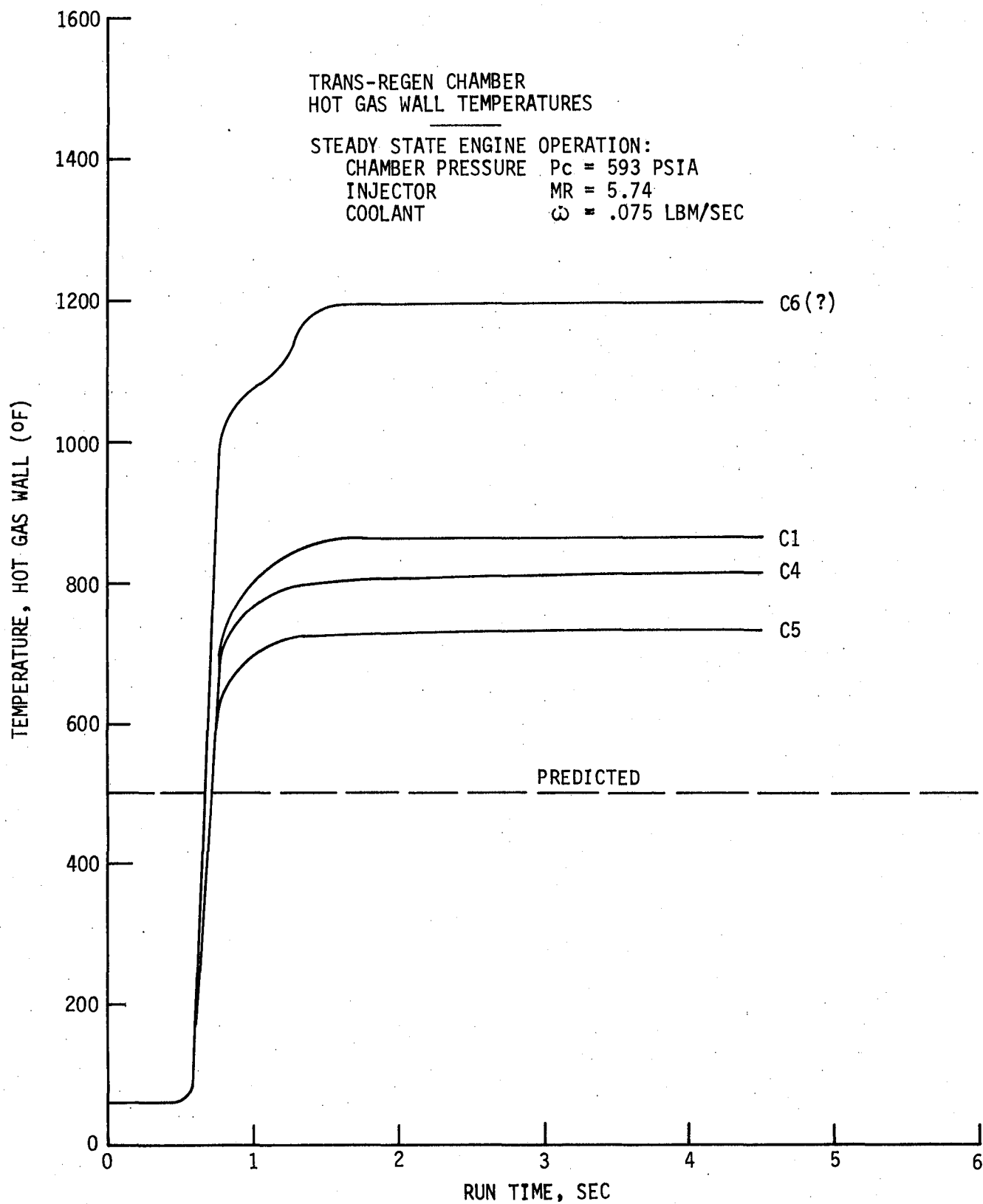


Figure 74. Transpiration Wall Temperature - C Plane, Hydrogen Coolant, Test 113

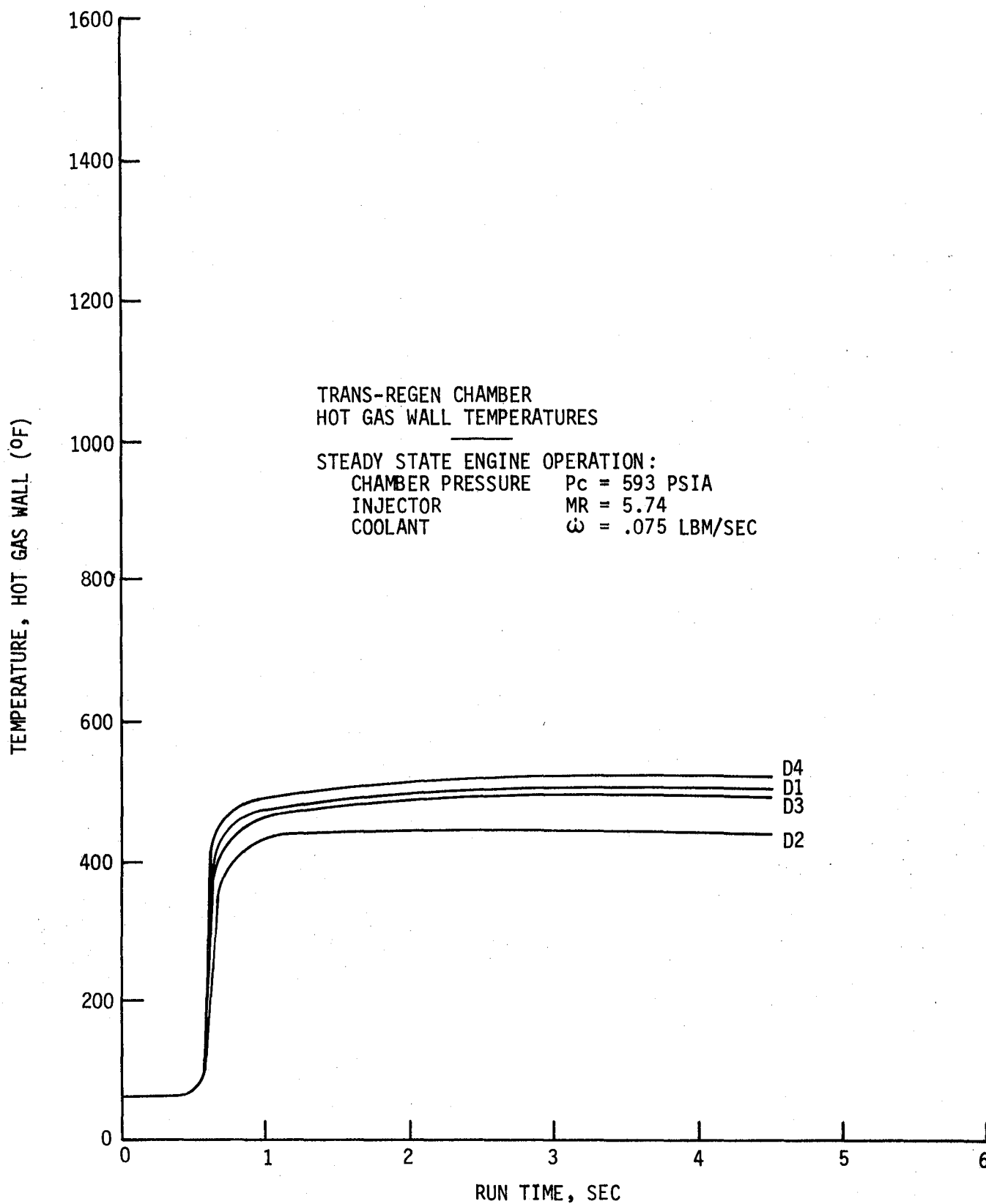


Figure 75. Regenerative Wall Temperatures - D Plane, Hydrogen Coolant, Test 113

### III, F, Task V - Data Analysis (cont.)

was believed to have an accidental interior junction formed in the process of peening the thermocouples into the instrumentation platelet slots.

On Figure 74, temperature C6 is indicated as being questionable. Thermocouple C6 was known to have reversed polarity prior to the test. The TC leads were switched to correct the polarity and give positive temperature readings, however the C6 values are consistently higher than all other C plane readings and are considered to be abnormal.

At this point a question arises as to why the helium cooling temperature data are reasonably close to that predicted and the hydrogen cooling data are grossly higher than predicted. It may be recalled that one of the objectives of the ancillary testing was to assess the possible effect of transpiration hydrogen reactivity with the combustion hot gases. It is possible that the much higher than predicted temperatures on tests 105 and 113 with hydrogen compared to the near nominal temperatures on test 111 with helium indicate that an exothermic secondary reaction was occurring in the hydrogen transpirant. Although it is possible that some hydrogen reaction was occurring and creating an abnormal heat flux into the transpiration wall section, it is likely that the primary cause of the helium/hydrogen disparity is in the degree of blowing. In order to adequately cool the transpiration section using helium, it was necessary to increase the coolant mass flux from .075 lbm/sec (for the hydrogen) to .155 lbm/sec (for the helium).

Although the transpiration wall temperatures approached 900°F on Test No., 113, it was decided to continue testing at reduced coolant flow rates to establish a wall temperature versus coolant flow rate trend. The original test plan was modified such that Test No. 115 was run with a coolant flow rate of .060 lbm/sec in lieu of .050 lbm/sec and Test No. 117



### III, F, Task V - Data Analysis (cont.)

used .045 lbm/sec in lieu of .036 lbm/sec. Table XX shows the revised test matrix as actually performed. Temperature plots are shown in Figures 76 through 83.

The trend in wall temperature versus coolant flow rate is summarized in Table XXI and Figure 84. In addition to the expected inverse relationship between coolant flow rate and wall temperature, the data show that hydrogen is a much more efficient coolant than helium. To achieve a nominal wall temperature of 800°-900°F, approximately twice as much helium as hydrogen was required (.155 lbm/sec of He vs .074 lbm/sec of H<sub>2</sub>).

Figure 84 also points up the disparity between the predicted and actual wall temperatures for the hydrogen coolant. It is apparent that the thermal model used to predict wall temperatures does not accurately characterize the effects of hydrogen transpiration cooling.

#### c. Data Consistency

Since the measured wall temperatures did not correlate with the predicted temperatures, an attempt was made to verify the reasonableness of the data. Two approaches were used: (1) a post test calibration of the thermocouples and (2) a simple heat balance calculation to show internal consistency.

##### (1) Thermocouple Calibration

At the conclusion of testing the trans-regen chamber was removed from the test stand. To calibrate the thermocouples, end plates were fabricated to close off the chamber. Heated GN<sub>2</sub> was then injected into the chamber through one of the end plates and permitted to

TABLE XX  
REVISED TEST MATRIX

<u>Test</u>	<u>Coolant</u>	<u>Transpiration Cooling</u>		<u>Transpiration Wall Temp. (°F)</u>	<u>Remarks</u>
		<u>Inlet Press (psia)</u>	<u>Flow Rate (lbm/sec)</u>		
1	Helium	1255	.155	800	Hot fire test, non-reactive coolant, high flow rate
2	Hydrogen	895	.075	800	Hot fire test, reactive coolant, high flow rate
3	Hydrogen	782	.060	1000	Hot fire test, reactive coolant, medium flow rate
4	Hydrogen	658	.045	1200	Hot fire test, reactive coolant, low flow rate

Normal firing duration was 5 sec

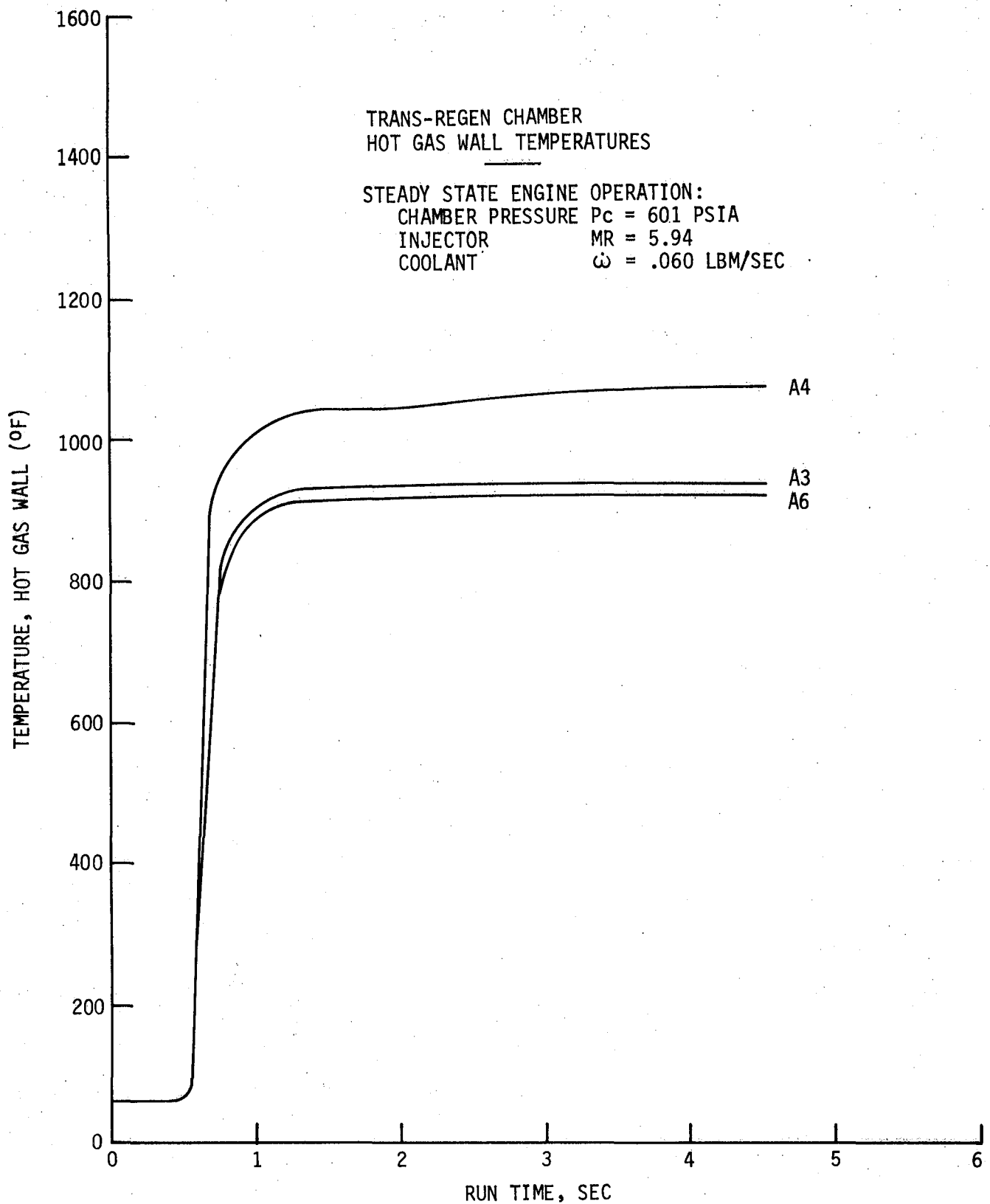


Figure 76. Transpiration Wall Temperature - A Plane, Hydrogen Coolant, Test 115

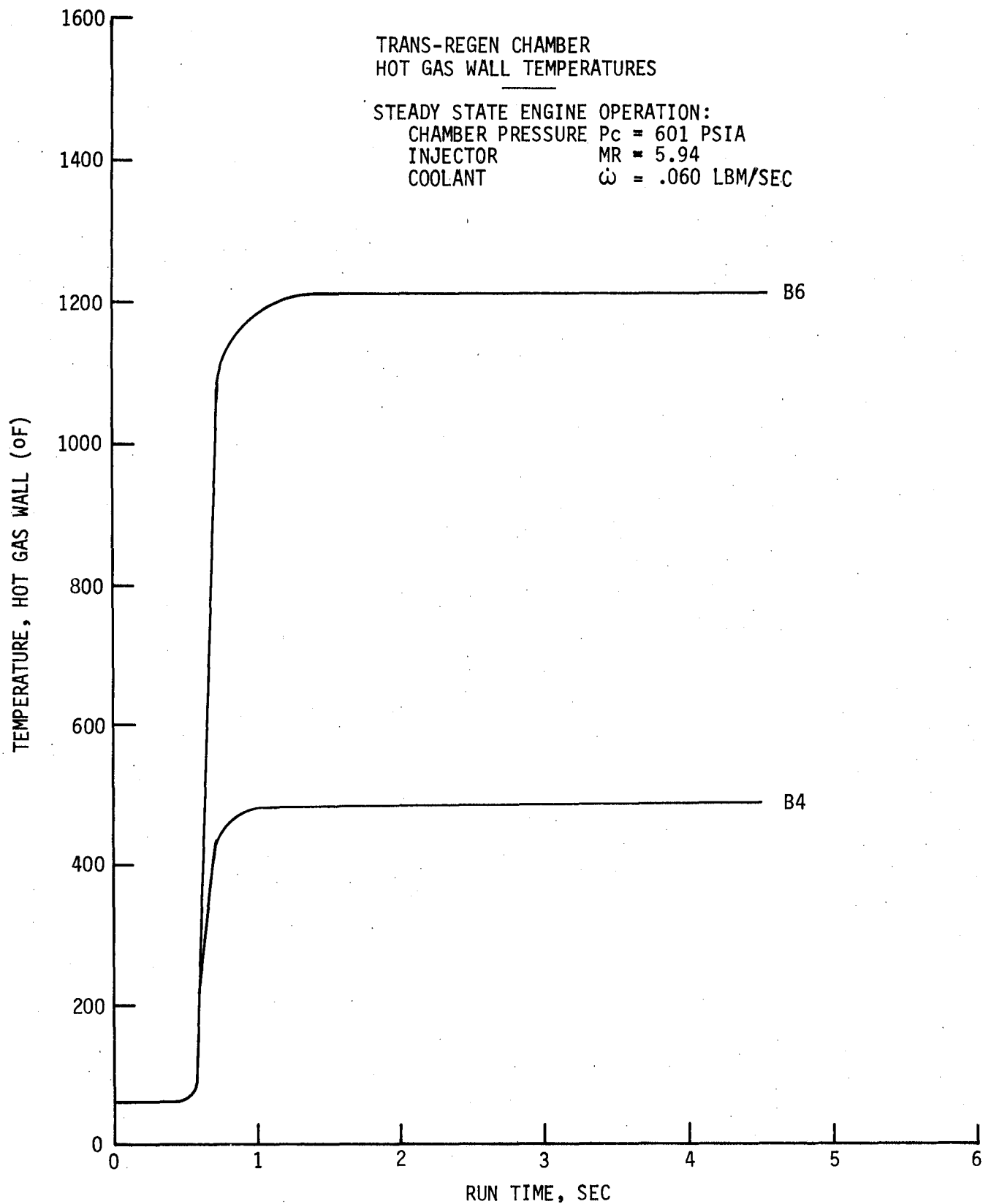


Figure 77. Transpiration Wall Temperature - B Plane, Hydrogen Coolant, Test 115

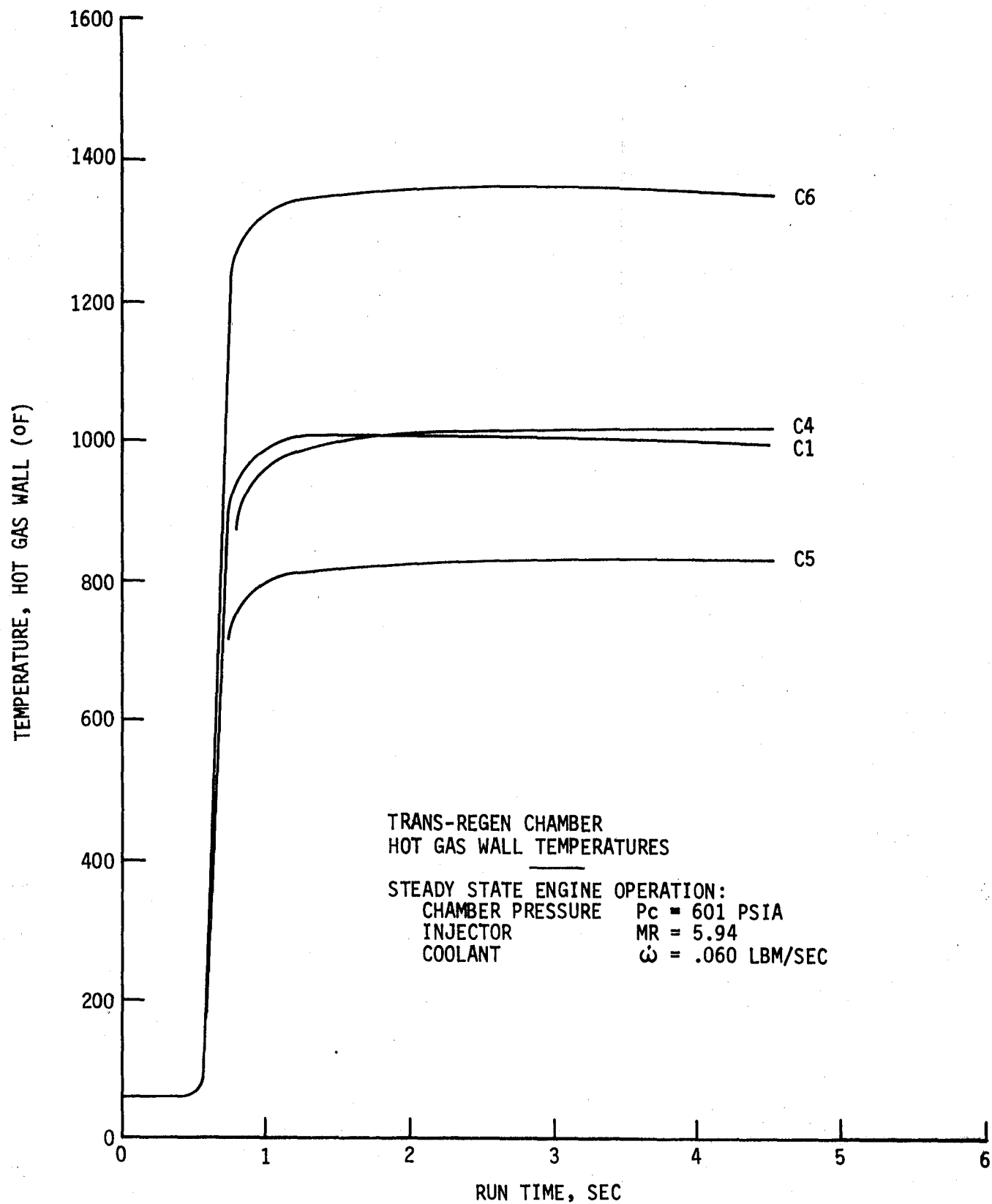


Figure 78. Transpiration Wall Temperature - C Plane, Hydrogen Coolant, Test 115

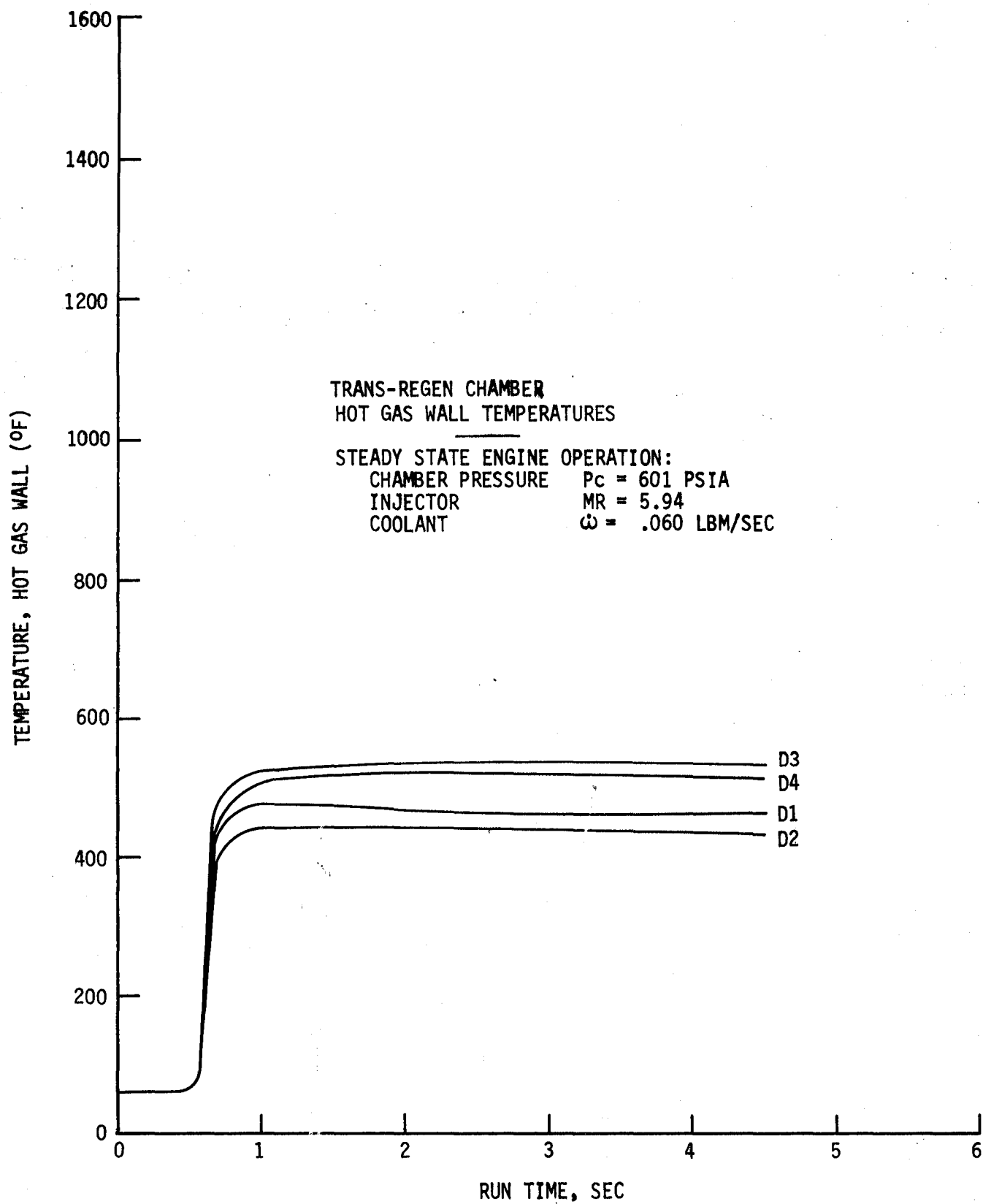


Figure 79. Regenerative Wall Temperature - D Plane, Hydrogen Coolant, Test 115

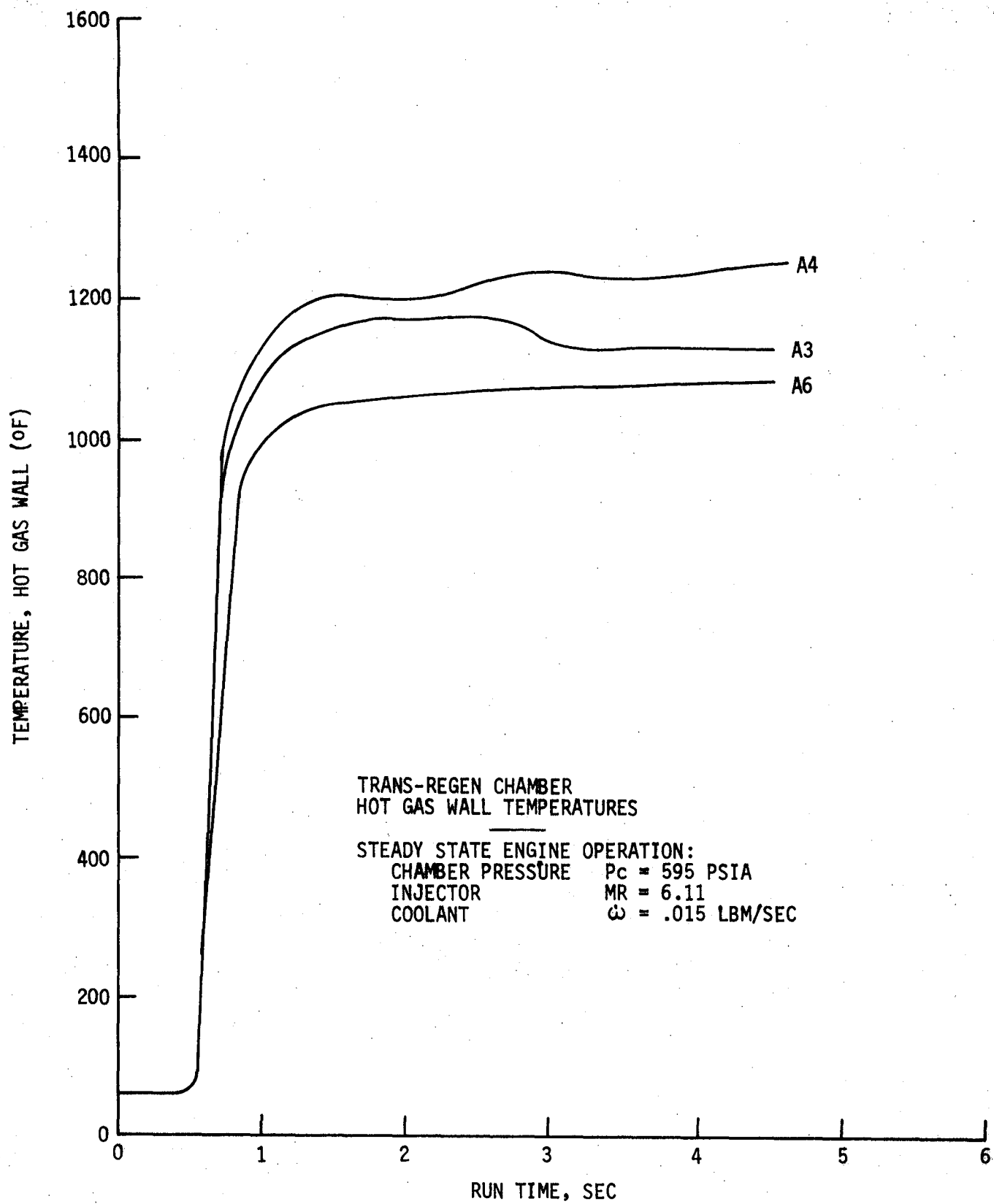


Figure 80. Transpiration Wall Temperature - A Plane, Hydrogen Coolant, Test 117

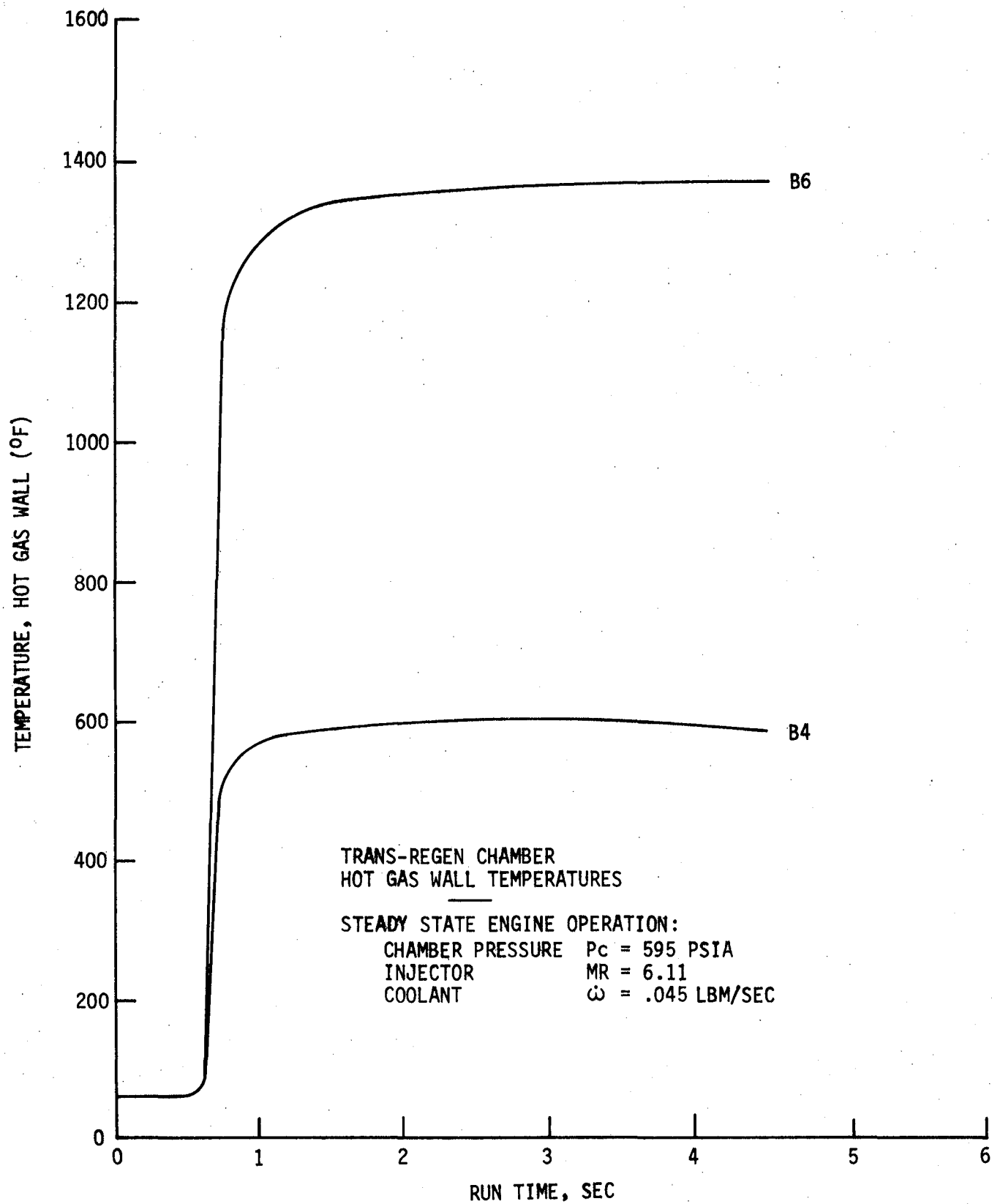


Figure 81. Transpiration Wall Temperature - B Plane, Hydrogen Coolant, Test 117



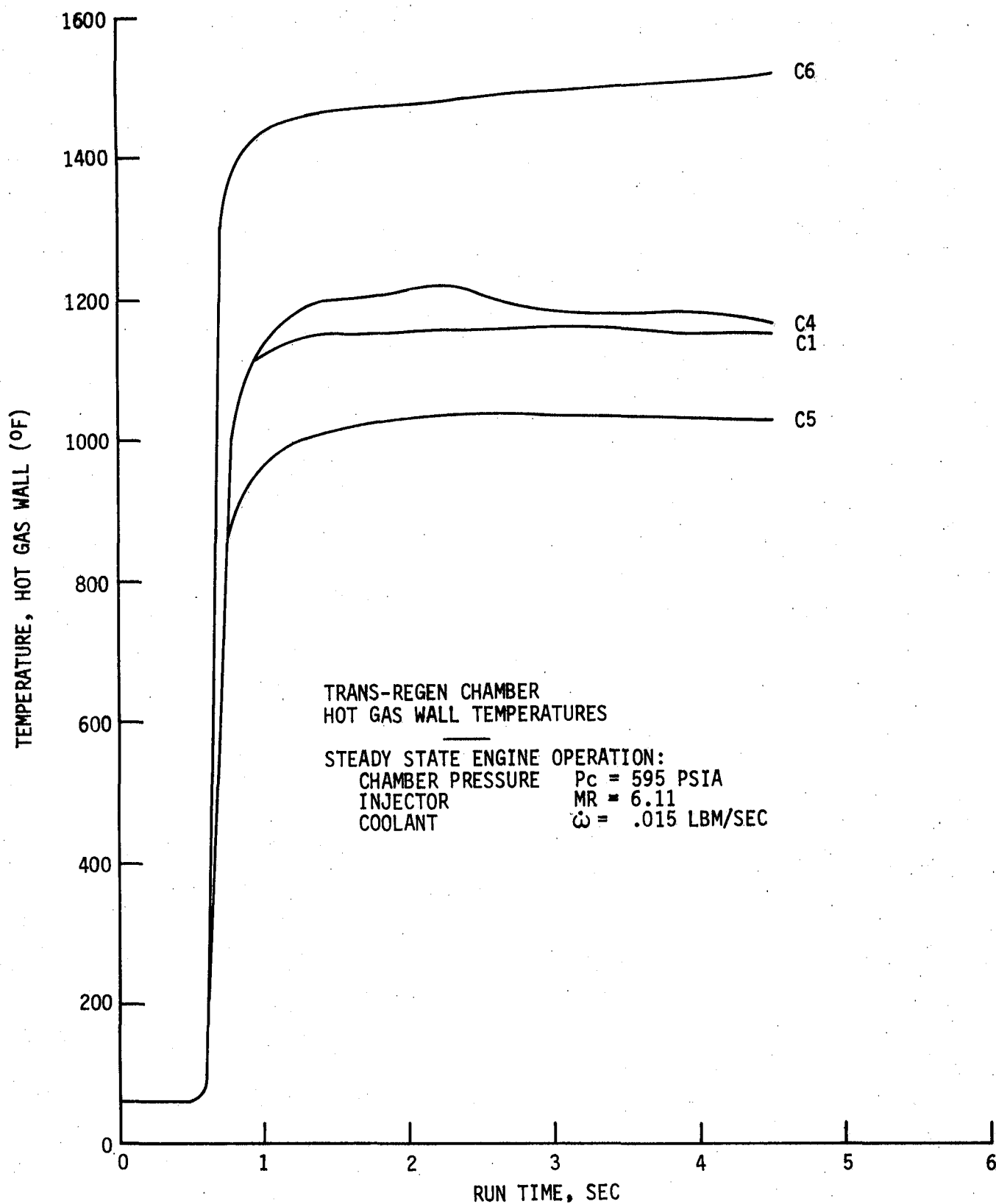


Figure 82. Transpiration Wall Temperature - C Plane, Hydrogen Coolant, Test 117

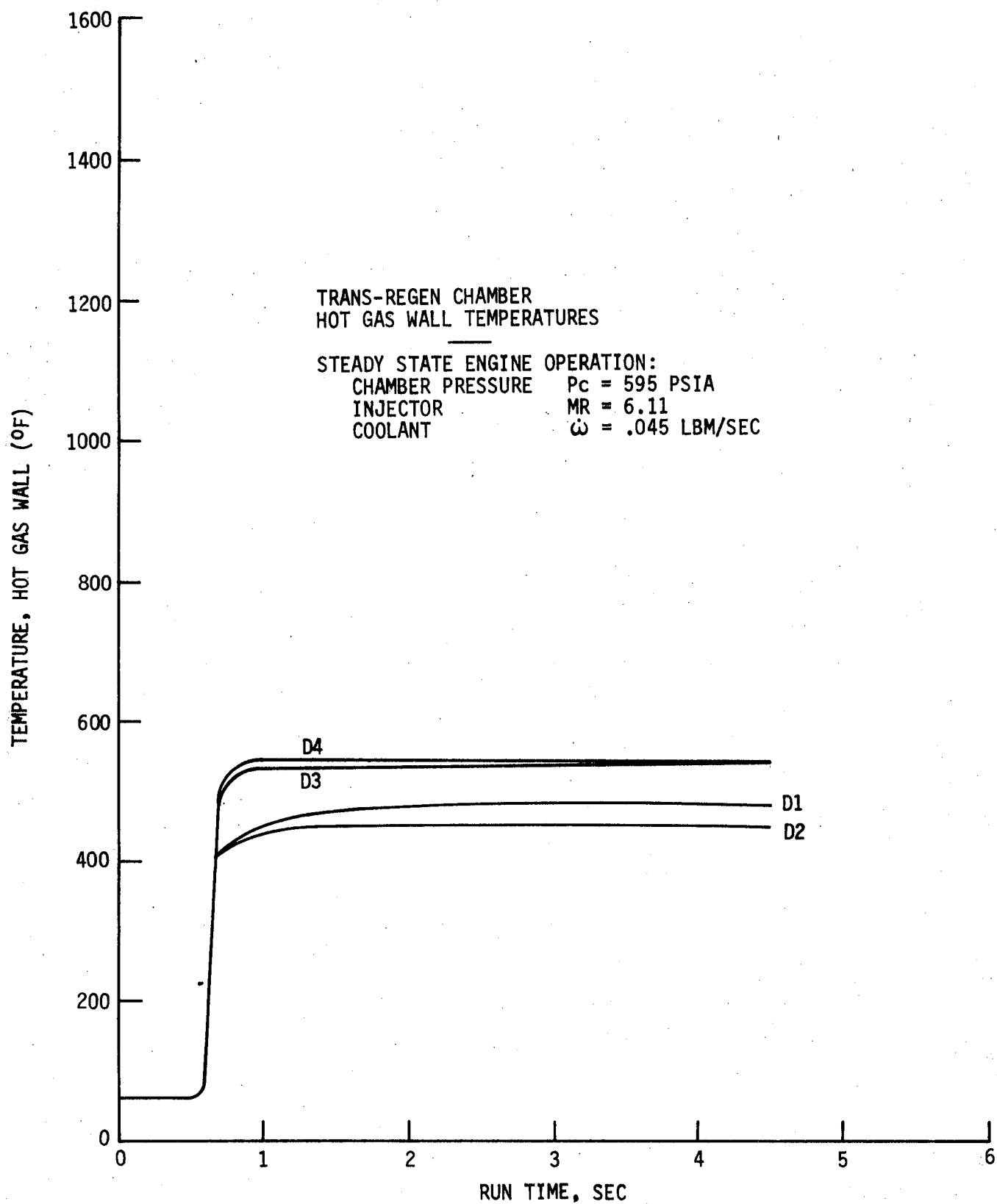


Figure 83. Regenerative Wall Temperature - D Plane, Hydrogen Coolant, Test 117

TABLE XXI

## TRANS-REGEN TEST RESULTS SUMMARY

	<u>Test #111</u>	<u>Test #113</u>	<u>Test #115</u>	<u>Test #117</u>	
Coolant	He	H <sub>2</sub>	H <sub>2</sub>	H <sub>2</sub>	
$\dot{W}_{\text{coolant}}$	.1554	.0743	.0606	.0468	lb/sec
Temp. A Nom.	853	844	980	1122	°F
Temp. B Nom.	860	898	1210	1370	°F
Temp. C Nom.	785	803	948	1115	°F
Temp. D Nom.	465	490	493	505	°F
$\dot{W}_{\text{Plug}}$	13.4	13.4	13.3	13.3	lb/sec
$\dot{W}_{\text{Regen}}$	10.9	10.9	10.9	10.8	lb/sec

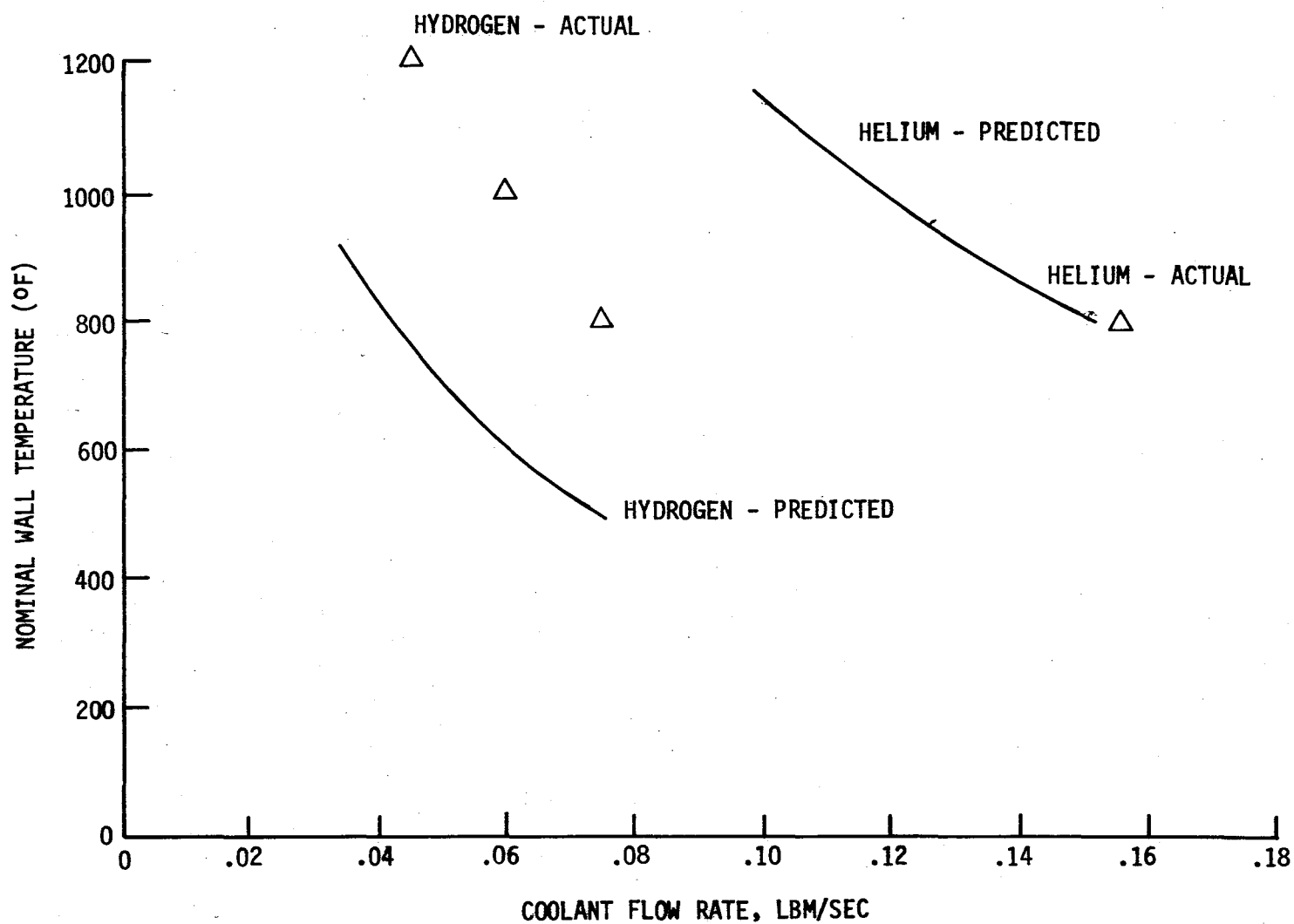


Figure 84. Wall Temperature versus Coolant Flow Rate

### III, F, Task V - Data Analysis (cont.)

reverse flow through the transpiration section and out the coolant inlet. this effectively introduced a temperature gradient across the transpiration plates in the direction seen during testing, at the same time permitting the entire section to attempt to come to thermal equilibrium. The computerized data readout is shown in Appendix D.

In summary, because of electrical heater limitations, the GN<sub>2</sub> could only be heated to approximately 460°F at the chamber inlet. A free-stream thermocouple inside the chamber indicated a maximum GN<sub>2</sub> temperature on the order of 430°F and the transpiration platelet thermocouples reached a maximum of 350°F.

A reasonably stable time slice was arbitrarily selected at point 5482.42990 from the computer printout in Appendix D. A summary of the temperature data is shown in Table XXII. Note that because of heater limitations, true thermal equilibrium could not be achieved. The heater thermostat cycled on and off during the test as evident by the fluctuating gas inlet temperature. Nonetheless the temperatures are quite uniform with the averages being extremely close. The A and C stations are next to the massive regen sections and would be expected to be a few degrees cooler than the center B station. Individually, thermocouples B6 and C6 appear to read somewhat higher than normal. Thermocouple C6 was known to have reversed polarity which may account for its higher than normal reading. In any event, it must be concluded that on the average the trans-regen thermocouple circuits were probably reading within their inherent  $\pm 3^\circ\text{F}$  accuracy.

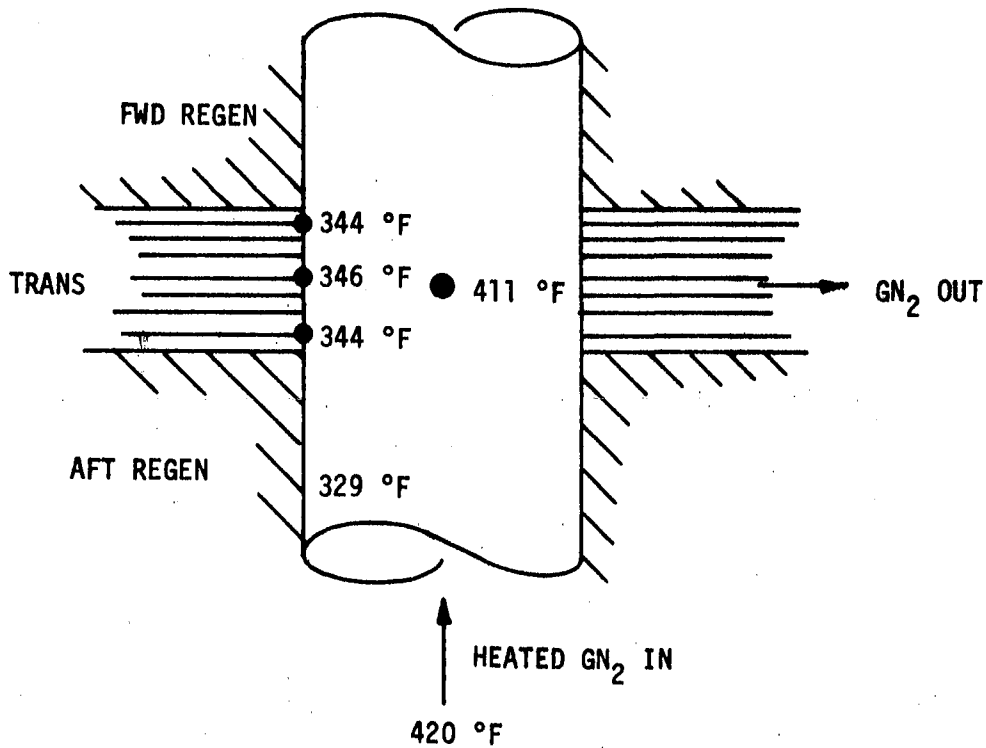
#### (2) Energy Balance

In order to verify the internal consistency of the temperature data and to develop some understanding of actual transpiration

TABLE XXII

THERMOCOUPLE CALIBRATION SUMMARY

Time Slice	5482.42990		
Inlet Temperature	420°F		
Chamber Gas Temp.	411°F		
Thermocouple	A3	344°F	av. = 344°F
	A4	343°F	
	A6	346°F	
	B4	345°F	av. = 346°F
	B5	342°F	
	B6	351°F	
	C4	341°F	av. = 344°F
	C5	341°F	
	C6	351°F	
	D1	330°F	av. = 329°F
	D3	328°F	



### III, F, Task V - Data Analysis (cont.)

cooling effectiveness, a series of simple energy balance calculations were performed for each of the trans-regen tests in the second test series.

For this evaluation it was assumed that the internal fin cooling model was accurate and any inaccuracies in the transpiration cooling model were the result of errors on the hot gas side. The average wall temperature and coolant flow rates at each of the three axial stations were used as input to the fin model and the  $h_g$  required to yield the measured temperatures was calculated per the following equation:

$$h_g \text{ required} = \frac{\dot{W}_c C_{pc} (T_w - T_{co})}{(T_{aw} - T_w)}$$

where:

- $h_g$  = wall film coefficient
- $\dot{W}_c$  = coolant blowing rate, lb/in.<sup>2</sup>-sec
- $C_{pc}$  = coolant specific heat
- $T_w$  = measured wall temperature, °F
- $T_{co}$  = coolant inlet temperature, °F
- $T_{aw}$  = adiabatic wall temperature, no blowing

A ratio of  $h_g$  required to  $h_{g0}$  (the smooth wall film coefficient) is plotted in Figures 85 and 86. Figure 85 shows the ratio, defined as M, for the normal platelets as a function of axial position. Figure 86 does the same for the three instrumentation platelets. Figure 87 shows the M ratio replotted as a function of percent coolant. It can be seen from these figures that:

- (a) Blockage occurs only at high transpirant flow rates as indicated by an M value less than 1.0.

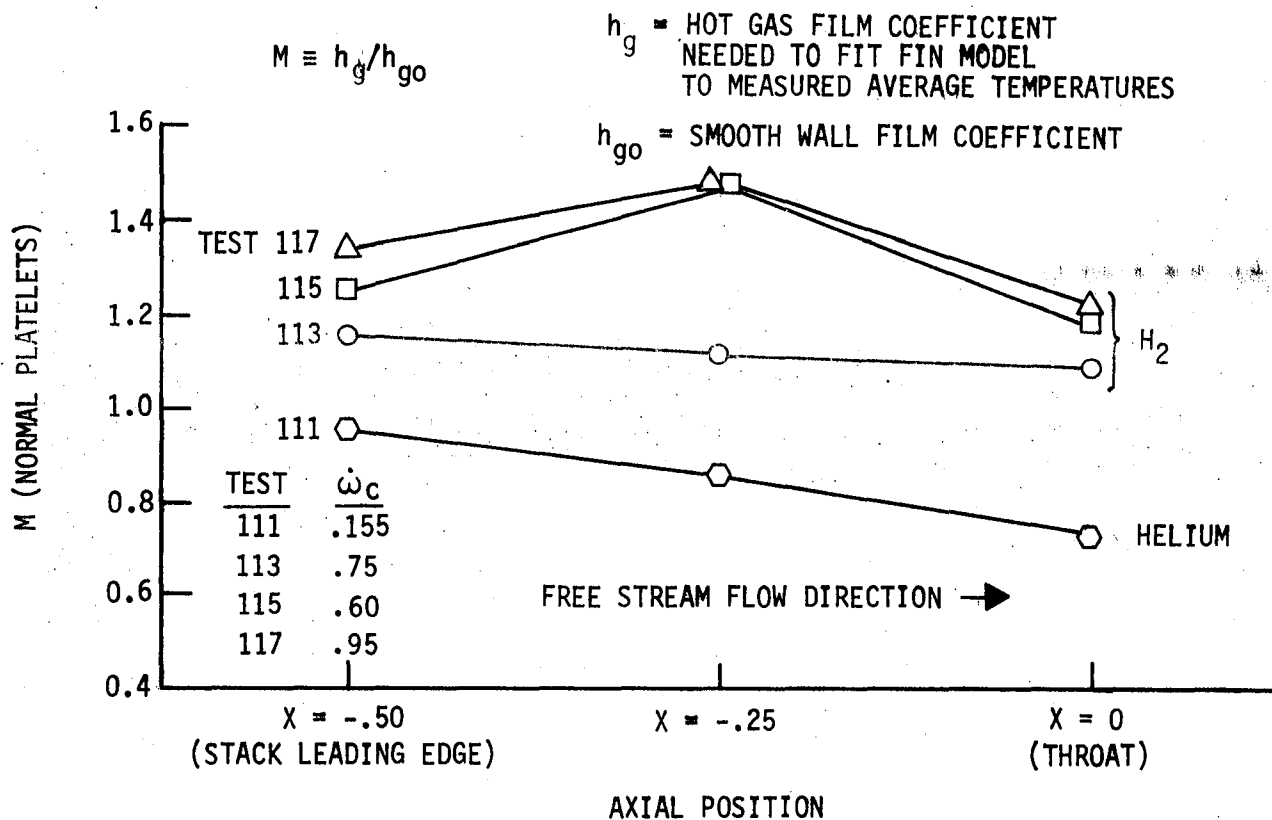


Figure 85. Film Coefficient Ratio - Normal Platelets

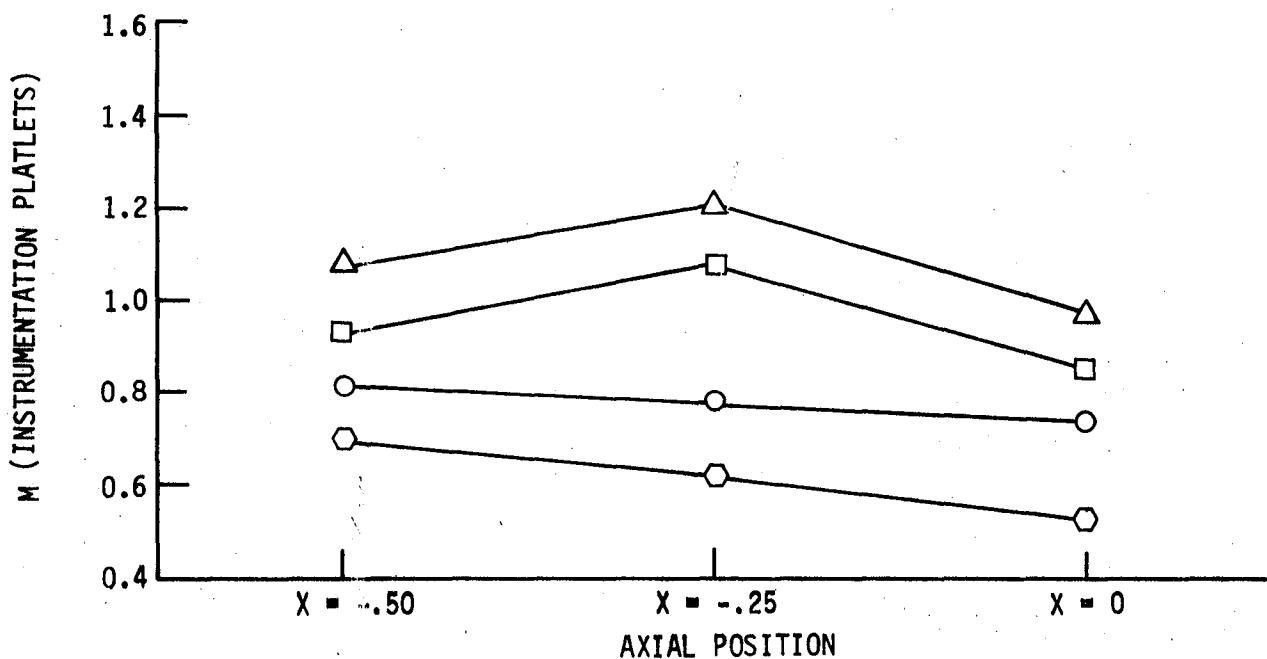


Figure 86. Film Coefficient Ratio - Instrumentation Platelets



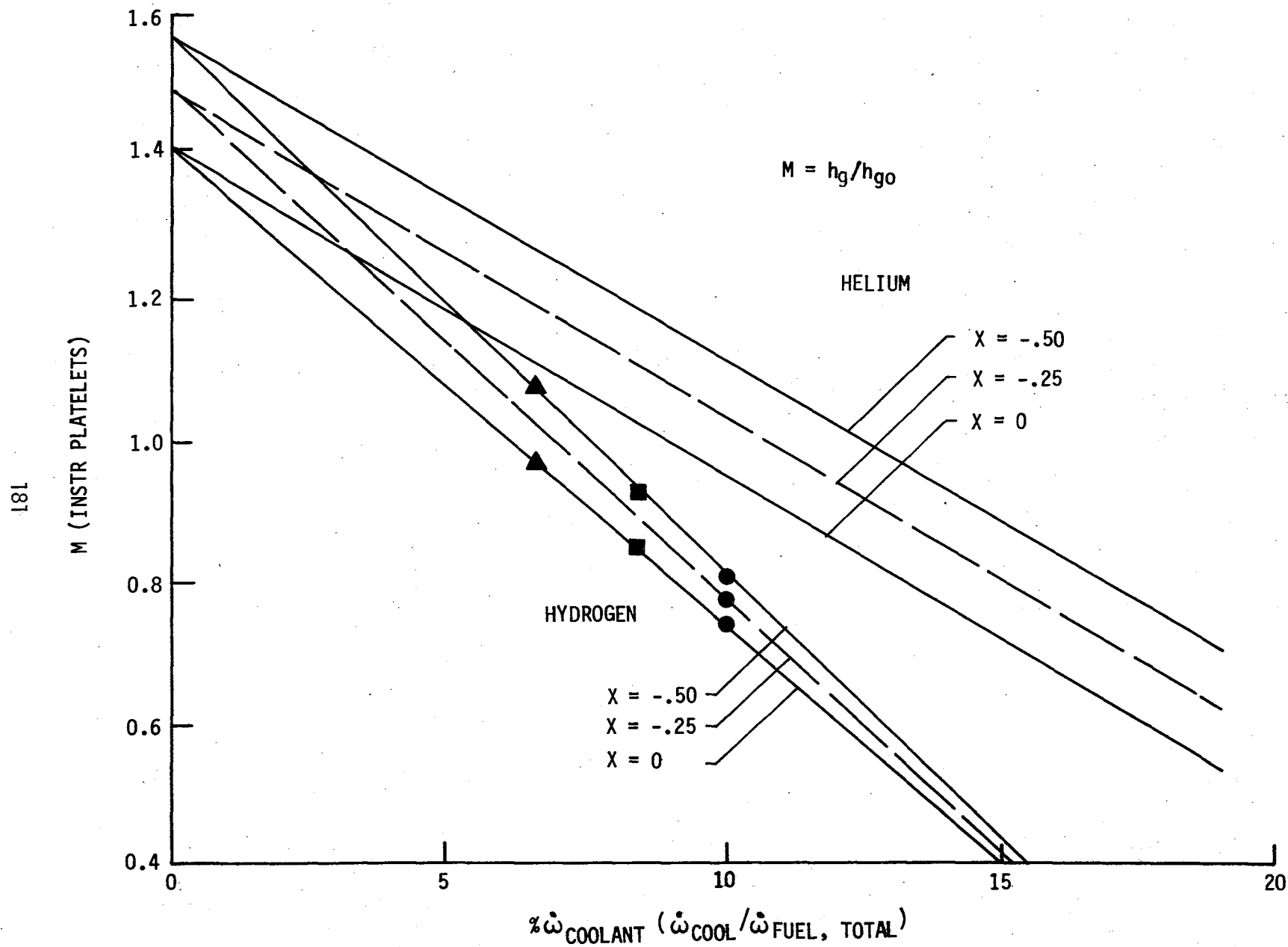


Figure 87. Film Coefficient Ratio versus Percent Coolant

### III, F, Task V - Data Analysis (cont.)

- (b) At low coolant flows  $h_g$  is actually enhanced - presumably due to wall geometry.
- (c) Some degree of film cooling carryover is apparent in all cases.
- (d) The data appear to be internally consistent.

#### 3. Performance Data Analysis

In order for transpiration cooling to be a viable concept it must not only be capable of providing low wall temperatures, it must do so without incurring unacceptable penalties. The true measure of acceptability is a function of the use of the engine. If the engine is expendable (one shot), then the measure may be simply  $I_{sp}$ . If the engine is reusable, then the true measure of effectiveness is probably not  $I_{sp}$  but rather life cycle cost or the cost of delivering a pound of payload to orbit.

For this technology program, using experimental hardware, the objective was stated in terms of performance loss, i.e., a "specific impulse loss of less than one percent due to transpiration cooling". To provide a basis for assessing the impact of transpiration cooling on specific impulse, four baseline regen-only tests (No.s 101, 102, 103 and 104) were run prior to the trans-regen testing. The thrust and propellant mass flow were measured on each of these tests in order to calculate  $I_{sp}$ . The specific impulse is shown plotted in Figure 88 as function of engine mixture ratio. For comparison the theoretical  $I_{sp}$  is also shown. Note that the delivered  $I_{sp}$  values are adjusted for heat loss to the cooling water and corrected to vacuum. A trend line has been drawn through the data points parallel to the theoretical  $I_{vac}$  trend line.

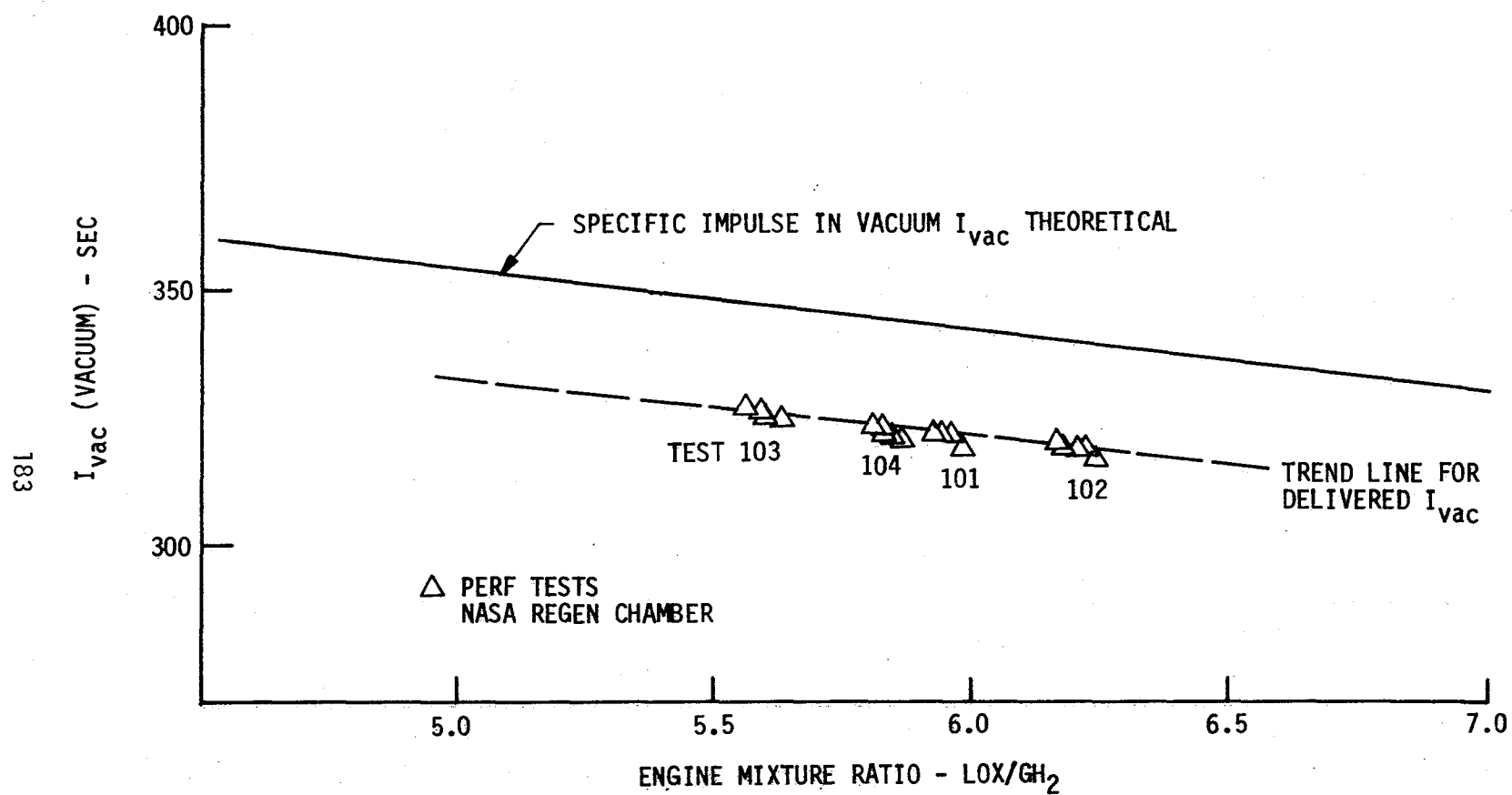


Figure 88. Comparison of Delivered and Theoretical Performance

### III, F, Task V - Data Analysis (cont.)

The original plan was to run a series of trans-regen tests over a range of coolant flow rates, measure the same operating parameters, see Table XXIII, calculate the corrected  $I_{vac}$  values and compare them to the extrapolated trend line derived from the regen performance tests to determine performance loss. Figure 89 shows the results of this comparison. In looking at this figure, first note test No. 111 is a helium coolant test which is shown for reference only and test No. 106 is not shown due to insufficient data. Data recording problems were experienced on test 106.

Several peculiarities can be observed in this data. First, test 111 with completely non-reactive helium coolant exhibits a performance loss of only one percent. It is not to be expected that a non-reactive coolant mass flow rate equivalent to 19 percent of the total fuel flow would cause a loss in  $I_{sp}$  of only one percent. It is apparent that either the data is incorrect or there is some other phenomenon which is occurring that distorts performance. One non-typical feature of the trans-regen that concerns ALRC is the plug chamber with its annular throat - the throat gap in the annulus (minimum chamber to plug clearance) is only .25 inches. While the throat area is 1.84 square inches, the circumference of the cylindrical chamber is 8.17 inches. In an ordinary non-plugged chamber with a throat of 1.84 sq in., the throat circumference would be only 4.81 inches - approximately 60% of that of the trans-regen. This abnormally large chamber throat circumference exaggerates the percentage of coolant required and the effect on  $I_{sp}$ .

In addition to test 111 having higher performance than expected, test 113 with a high hydrogen transpirant flow rate also exhibited higher than expected performance while the lower coolant flow rate tests, Nos. 115 and 117, exhibited lower than expected performance. In order to attempt to understand these performance anomalies, a technique was used

TABLE XXIII

## PERFORMANCE DATA

$$P_c \sim 600 \text{ PSIA} \quad \epsilon = 1.78$$

Regen Only Tests

Test No.	MR Core	MR Engine	Isp Del	Isp Corr	$\frac{\dot{W}_{\text{Coolant}}}{\dot{W}_{\text{T,Fuel}}}$	$I_{\text{spODE}}$ Ave Inj MR	$\eta_{\text{SYSTEM}}$	$\eta_{\text{TRANS}}$
101	5.93	5.93	321.5	325.9	N/A	344.0	.9474	1.0
102	6.17	6.17	320.4	324.8	N/A	340.5	.9539	1.0
103	5.58	5.58	326.7	331.1	N/A	348.0	.9514	1.0
104	5.81	5.81	323.6	328.0	N/A	345.0	.9507	1.0

H<sub>2</sub> Trans/Regen Tests

105	5.78	5.19	328.7	332.1	10.3	352.2	.951	.9915
107	5.83	5.23	328.1	331.6	10.3	352.0	.951	.9906
113	5.60	5.04	330.2	333.7	10.1	354.0	.951	.9912
115	5.89	5.40	321.6	325.1	8.4	350.0	.951	.9767
117	5.84	5.46	320.0	323.5	6.6	349.0	.951	.9747

He Trans/Regen Test

111	5.52	4.47	335.3	338.8	18.9	354.0	.951	1.006
-----	------	------	-------	-------	------	-------	------	-------

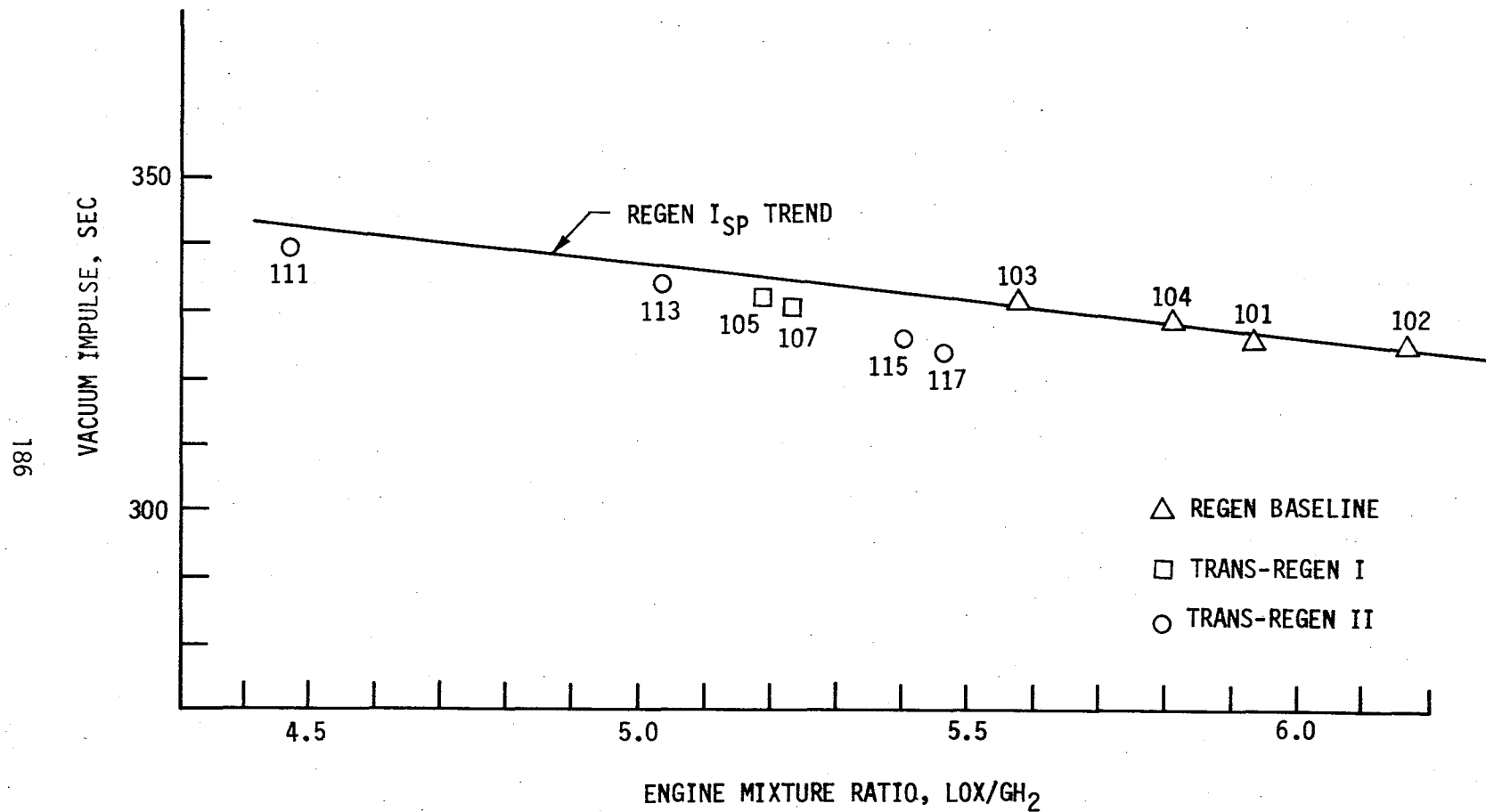


Figure 89. Engine Performance

### III, F, Task V - Data Analysis (cont.)

wherein the parameters that influence specific impulse are treated as efficiency factors or ratios of actual versus theoretical.

This performance analysis technique per CPIA 246 relates delivered  $I_{sp}$  to theoretical  $I_{sp}$ , ODE (one dimensional equilibrium) as follows:

$$I_{spDEL} = I_{sp,ODE} \left[ \frac{\eta_{HL}}{AVE} \times \frac{\eta_{TD}}{INJ} \times \frac{\eta_{KIN}}{MR} \times \eta_{VAP} \times \eta_{MIX} \times \eta_{TRANS} - (1 - \eta_{BL}) \right]$$

Which can be simplified as follows:

(1)  $\eta_{BL} \simeq 1.0$  to  $.99$  (Low Shear Losses)

$$\pi\eta - (1 - \eta_{BL}) \simeq \pi\eta \times \eta_{BL}$$

(e.g.  $.96 - (1 - .99) \simeq .96 \times .99$ )

(2)  $\eta_{HL} = \eta_{HLREGEN} \times \eta_{HLPLUG}$

(3)  $\eta_{HLPLUG} \times \eta_{TD} \times \eta_{KIN} \times \eta_{VAP} \times \eta_{MIX} \times \eta_{BL} = \eta_{SYS}$

(4)  $\eta_{SYS}$  is the same for both the regen and trans/regen systems.

Finally:

$$I_{spDEL} = I_{spODE} \times \eta_{SYS} \times \frac{\eta_{HL}}{AVE} \times \frac{\eta_{TD}}{INJ} \times \frac{\eta_{KIN}}{MR} \times \eta_{VAP} \times \eta_{TRANS}$$

### III, F, Task V - Data Analysis (cont.)

$\eta_{HL}$  is determined from measured coolant water REGEN

Bulk temperature rise,  $\dot{W}_{H2O}$ , and  $\dot{W}_T$  using the ODE computer program, i.e.

$$\eta_{HL \text{ REGEN}} = \frac{I_{sp \text{ ODE}} @ H_{CHB} = H_o - \Delta H}{I_{sp \text{ ODE}} @ H_{CHB} = H_o}$$

$$\eta_{HL \text{ REGEN}} \approx \frac{\text{REGEN ONLY}}{.986} \quad \text{TRANS/REGEN} \quad .990$$

Define  $I_{sp \text{ CORR}}$  as follows:

$$I_{sp \text{ CORR}} = I_{sp \text{ DEL}} / \eta_{HL \text{ REGEN}}$$

Then

$$I_{sp \text{ CORR}} = \frac{I_{sp \text{ ODE}} \times \eta_{SYS} \times \eta_{TRANS}}{\text{AVE INJ. MR}}$$

and for REGEN only ( $\eta_{TRANS} = 1.0$ )

$$I_{sp \text{ CORR}} = \frac{I_{sp \text{ ODE}} \times \eta_{SYS}}{\text{AVE INJ. MR}}$$

For REGEN tests

$$\eta_{SYS} = \frac{I_{sp \text{ CORR}}}{I_{sp \text{ ODE}}} \times \text{AVE INJ. MR}$$

For TRANS/REGEN tests

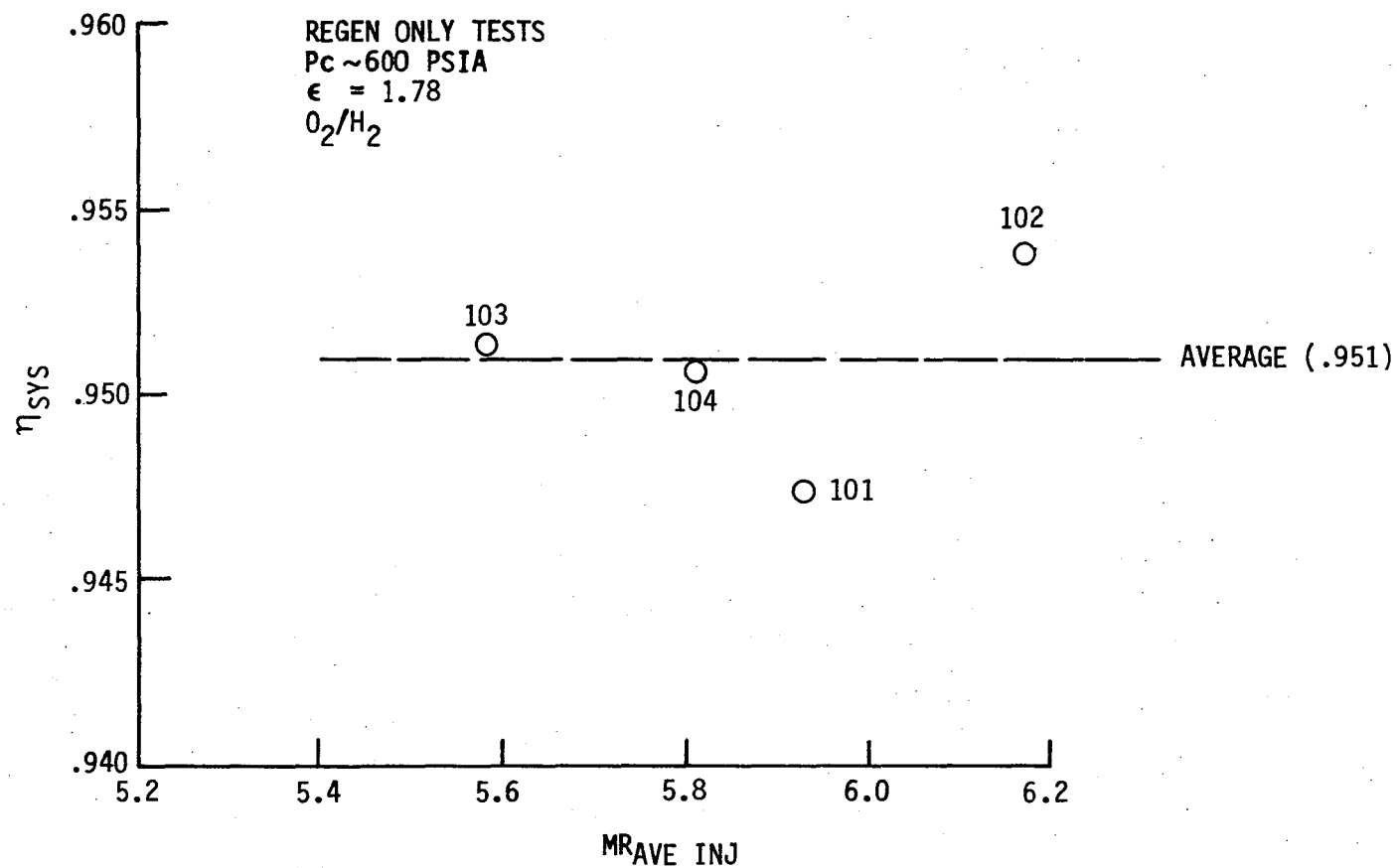
$$\eta_{TRANS} = \frac{I_{sp \text{ CORR}}}{I_{sp \text{ ODE}} \times \eta_{SYS}} \times \text{AVE INJ. MR}$$



### III, F, Task V - Data Analysis (cont.)

In brief,  $\eta_{\text{SYS}}$  is a measure of basic system performance efficiency for this injector/chamber configuration. Therefore, for the regen only test  $\eta_{\text{SYS}}$  is equal to the ratio of corrected  $I_{\text{sp}}$  as measured to ODE  $I_{\text{sp}}$ . The  $\eta_{\text{SYS}}$  values shown in Table XXIII are plotted on Figure 90. It can be seen in Figure 90 that there is no apparent trend in system efficiency versus mixture ratio; so an arithmetic average  $\eta_{\text{SYS}}$  of .951 was used as being representative of regenerative baseline efficiency for all test conditions of interest.

Having established the baseline regen efficiency, the next step was to calculate a transpiration performance efficiency,  $\eta_{\text{TRANS}}$ . The last column on Table XXIII tabulates these values and Figure 91 shows the values plotted as a function of percent cooling ( $\dot{W}_{\text{TRANS}}/\dot{W}_{\text{fuel, total}}$ ). It can be seen that the low coolant flow performance efficiencies are around 97.5% while the high flow helium test appears to exceed 100%. As pointed out previously, these test results are unexplainable. Either there is a significant experimental error or there is some gas dynamic phenomenon that is creating a performance aberration.



$$\eta_{SYS} \approx \eta_{PLUG}^{HL} \times \eta_{TO} \times \eta_{KIN} \times \eta_{VAP} \times \eta_{MIX} \times \eta_{BL}$$

Figure 90. Effective System Performance Efficiency

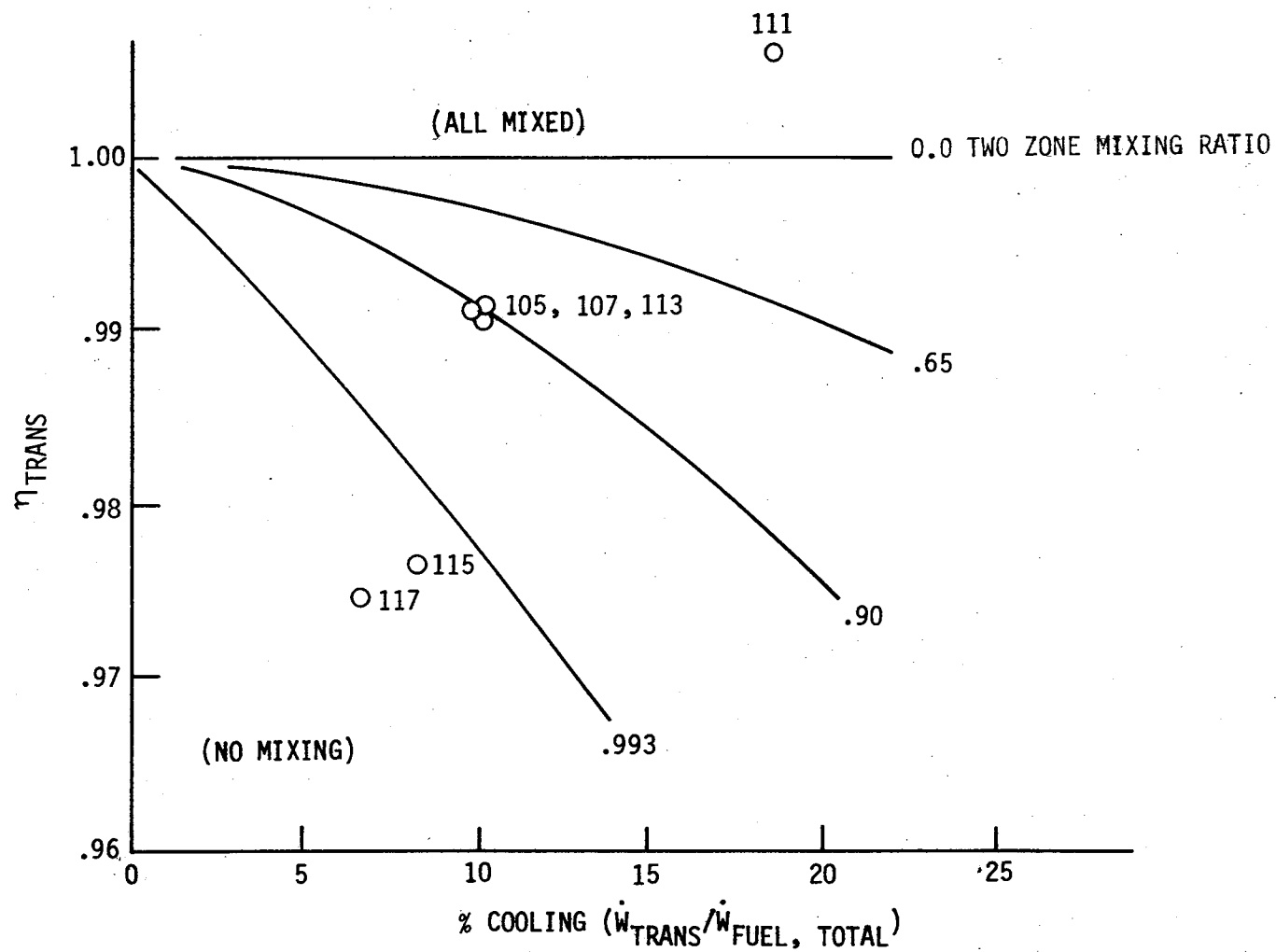


Figure 91. Summary of Tran Cooling Isp Efficiency

SECTION IV  
FINDINGS AND RECOMMENDATIONS

A. FINDINGS

The major findings from this program are:

1. Transpiration cooling platelets can be successfully fabricated from OFH copper sheet stock of 4 mil to 20 mil thickness.
2. Photoetching the copper platelets creates excellent coolant flow distribution and control.
3. Hot gas wall thermocouples must be in intimate thermal contact with the instrumentation platelet to assure accurate and consistent readings.
4. Theradial temperature gradient through the transpirant wall is very steep and the wall depth used could be significantly reduced.
5. The OFHC platelet stack has a tendency to grow inward creating a step between the stack and the chamber regen wall.
6. The rate of thermocouple attrition was unacceptably high - approximately 50%.
7. Transpiration section hot gas wall temperatures tended to run 300 to 500°F (60-70%) above predicted.
8. Hydrogen is a better (more efficient) coolant than helium.

#### IV, A, Findings (cont.)

9. The cooling model used, a combination of blockage and fin thermal models, does not adequately characterize the transpiration cooling effects of hydrogen at the flow rates employed.
10. Cooling carryover effects are significant and should be used in determining coolant flow requirements.
11. Measured specific impulse loss due to transpiration cooling varied from 0 to 9 seconds compared to the baseline regen performance. The predicted loss was 4 to 7 seconds.

#### B. RECOMMENDATIONS

In light of the problems areas experienced on this program, the following recommendations are offered for consideration on any related transpiration cooling evaluation programs:

1. Utilizing the data developed on this and similar programs, perform sufficient thermal modeling analysis (including discrete coolant injection and cooling carryover) to closely characterize the data and permit extrapolation to different design points.
2. To understand the effects on performance of transpiration cooling in an annular chamber configuration, some sophisticated performance modeling should be undertaken.
3. Analyze, design and fabricate a non-annular, typical regen chamber with a transpiration cooled throat section.

#### IV, B, Recommendations (cont.)

4. To determine the real impact of transpiration cooling performance loss, fabricate and test higher pressure, higher heat flux, higher expansion ratio chambers.
5. Perform an evaluation of various types of thermocouple junctions and installation techniques for accuracy, response and survival.

## SECTION V

### REFERENCES

1. Bartle, E.R. and Leadon, B.M., The Effectiveness as a Universal Measure of Mass Transfer Cooling for a Turbulent Boundary Layer, Proceedings of the 1962 Heat Transfer and Fluid Mechanics Institute, Stanford Univ. Press., Stanford, California, 1962.
2. Performance of a Transpiration-Regenerative Cooled Rocket Thrust Chamber, Vol. I: Technical, Proposal LR887731, 24 June 1977.
3. Powars, C.A., Surface Roughness Effects on Re-entry Heating, Aerotherm Technical Memorandum TM-71-10, July 1971.
4. Blubaugh, A.L. and Zisk, E.J., Demonstration of an Advanced Transpiration-Cooled Thrust Chamber, Final Report, Tech. Report AFRPL-TR-67-198, 31 October 1967.
5. Walker, R.E., Hydraulic Characterization of Platelet Nozetips, Report 9700:M-46, November 1971.
6. Shapiro, A.H., The Dynamics and Thermodynamics of Compressible Fluid Flow, Ronald Press., New York, 1953.
7. Combustion Effects on Film Cooling, Contract NAS 3-17813 HOC00L Users Manual, 15 July 1975.
8. Kays, W.M., and London, A.L., Compact Heat Exchangers, McGraw-Hill Book Co., New York, 1964.
9. Stromsta, R.S. and Hosack, G.A., Analytical Methods for Computing the Effects of Turbine Exhaust and Film-Coolant Injection on Rocket Engine Performance, AIAA Paper No. 69-473, AIAA 5th Propulsion Joint Specialist Conference, June 9-13, 1969.





APPENDIX A  
REGEN TEST DATA



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78

14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO .1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	WL02-1	WL02-2	WH20P-1	WH20P-2	WH20C-1	WH20C-2	TOFM	PGOT	POV	POJ	F-A	F-B	FCALA 31941A	PGFT 31941B
PARAMETER	LR-W	LR-W	LR-W	LR-W	LR-W	LR-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS
UNITS	LR-W	LR-W	LR-W	LR-W	LR-W	LR-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48
183378	2.95757	2.98192	14.4446	14.6454	14.8355	14.6350	-284.40	831.427	809.769	14.6488	95.4248	95.7332	.790355	.296452
167071	2.95666	2.98024	14.4756	14.6489	14.8522	14.6467	-284.49	831.427	809.923	14.9560	95.8342	95.7332	-.24054	.296452
150847	2.95726	2.98276	14.5119	14.6436	14.8578	14.6613	-284.52	831.427	811.770	14.9560	95.8342	95.7332	-.24054	.502680
134161	2.95243	2.97968	14.5294	14.6436	14.8578	14.6759	-284.55	830.812	811.770	14.9560	96.4483	95.7332	-.24054	.296452
117853	2.94035	2.97072	14.5307	14.6576	14.8467	14.6759	-284.62	830.812	810.539	14.9560	96.4483	95.9394	-.65290	.502680
101639	2.93794	2.96680	14.4971	14.6699	14.8299	14.6700	-284.65	830.812	812.232	14.6488	95.0153	94.9081	-.24054	.502680
084841	2.94277	2.96820	14.4124	14.6594	14.8243	14.6584	-284.75	830.812	814.388	14.9560	94.6059	94.2893	-.03436	.296452
068647	2.94035	2.96624	14.3465	14.6436	14.8243	14.6525	-284.87	830.812	811.770	14.6488	94.1965	94.0830	-.03436	.296452
052407	2.93703	2.96371	14.3209	14.6366	14.8355	14.6525	-284.91	830.505	811.770	14.6488	94.8106	94.9081	.171816	.296452
035628	2.93069	2.95055	14.3196	14.6349	14.8467	14.6642	-284.91	830.812	830.708	14.6488	95.4248	95.7332	-.03436	.296452
019416	2.79902	2.93771	14.3357	14.6576	14.8578	14.6803	-285.03	830.812	889.522	14.6488	96.4483	96.5582	-.24054	.296452
003192	2.28716	2.26046	14.3747	14.6664	14.8578	14.6905	-285.16	831.427	879.976	14.6488	96.6530	96.5582	.171816	.502680
021770	1.17557	1.13738	14.4272	14.6769	14.8522	14.6905	-285.32	831.427	874.587	14.6488	95.0153	94.9081	.171816	.296452
040453	.502750	.445323	14.4218	14.6769	14.8467	14.6861	-285.38	832.042	848.722	14.9560	94.6059	94.0830	.171816	.296452
056959	.133426	.098036	14.4070	14.6699	14.8299	14.6759	-285.42	832.657	841.793	14.9560	96.4483	95.9394	-.03436	.296452
073282	-.01304	.014295	14.3949	14.6594	14.8188	14.6671	-285.67	832.657	866.119	21.2020	95.0153	94.9081	.171816	.296452
089493	-.06377	.019617	14.4003	14.6576	14.8188	14.6613	-285.64	832.965	851.185	38.4043	95.8342	95.1144	.171816	.296452
106279	-.08914	.082352	14.4164	14.6594	14.8355	14.6613	-285.64	833.272	846.720	52.6371	94.6059	94.0830	.171816	.296452
122502	-.09880	.131925	14.4325	14.6594	14.8411	14.6511	-285.77	833.887	869.199	58.1664	93.7871	94.0830	.171816	.296452
139715	-.09608	.158531	14.4070	14.6576	14.8355	14.6336	-285.89	833.887	851.801	59.1903	93.7871	94.0830	-.03436	.296452
156496	-.08430	.176456	14.4016	14.6489	14.8355	14.6204	-286.44	833.887	844.564	58.0640	93.1729	92.4329	-.24054	.296452
172710	-.07102	.179537	14.3693	14.6366	14.8355	14.6117	-285.93	834.041	866.735	57.5520	92.1494	92.4329	-.24054	.502680
189928	-.05863	.151530	14.3465	14.6244	14.8243	14.6087	-286.02	834.502	851.955	57.1424	92.1494	92.4329	-.24054	.296452
206191	-.04656	.134165	14.3693	14.6174	14.8243	14.6175	-286.18	834.502	841.485	56.8353	93.1729	92.4329	-.24054	.296452
229784	.019579	.154330	14.3787	14.6209	14.8257	14.6394	-286.18	834.502	865.965	56.7329	88.2599	89.1326	-.24054	.502680
247857	.071519	.130804	14.3855	14.6384	14.8243	14.6277	-286.44	835.117	842.409	56.3233	88.0552	89.1326	-.03436	.502680
263977	.095678	.070309	14.3626	14.6436	14.8243	14.6175	-286.44	835.117	851.185	55.0946	90.5117	89.9577	-.03436	.502680
280194	.130708	.017096	14.3411	14.6244	14.8411	14.6204	-286.60	835.117	865.965	55.9137	91.7400	90.9890	.171816	.296452
296976	.143995	.020457	14.3142	14.6016	14.8578	14.6277	-286.53	835.117	845.180	55.9137	90.1023	89.3389	-.03436	.296452
313180	.101718	.077871	14.3317	14.6016	14.8467	14.6321	-286.44	835.271	847.028	55.9137	90.5117	90.7828	.171816	.296452
330881	.046153	.174495	14.3680	14.6314	14.8243	14.6336	-286.56	835.271	865.965	55.9137	92.5588	92.4329	-.24054	.296452
347202	.009915	.213705	14.3586	14.6454	14.8132	14.6336	-286.69	835.732	848.875	55.9137	93.1729	92.4329	-.03436	.296452
363409	-.00639	.181217	14.3801	14.6576	14.8257	14.6350	-286.69	835.732	843.795	55.6065	91.7400	91.6078	.171816	.502680
380117	-.01062	.164133	14.4393	14.6454	14.8578	14.6350	-286.79	835.732	864.580	55.5041	90.1023	89.9577	-.03436	.296452
396420	-.01032	.152090	14.4393	14.6384	14.8746	14.6292	-286.92	835.732	854.418	55.4017	90.5117	90.7828	.171816	.502680
412627	-.00820	.113720	14.3949	14.6384	14.8802	14.6146	-286.95	835.886	841.485	55.1970	91.5353	91.6078	.171816	.502680
438058	-.00669	.143688	14.3357	14.6209	14.8690	14.6277	-287.08	835.886	865.965	55.0946	91.3306	90.9890	-.24054	.296452
454635	.015955	.166373	14.3371	14.6139	14.8578	14.6394	-287.08	836.347	848.260	55.0946	92.1494	91.8141	-.03436	.296452
470870	.086015	.184018	14.3653	14.6296	14.8411	14.6511	-287.17	836.347	846.258	54.4802	92.1494	92.4329	-.24054	.296452
487178	.119837	.204743	14.4056	14.6594	14.8411	14.6525	-287.04	836.347	865.965	54.6850	92.1494	92.4329	-.24054	.296452
503390	.092054	.178977	14.4164	14.6664	14.8425	14.6569	-286.92	836.501	854.880	55.0946	91.5353	91.6078	-.03436	.502680
520094	.046153	.165253	14.4285	14.6699	14.8467	14.6613	-286.95	836.501	842.409	55.0946	91.7400	91.6078	-.03436	.296452
536394	.014747	.179817	14.4124	14.6576	14.8257	14.6525	-286.92	837.577	848.722	65.7436	93.3777	92.8454	-.65290	.296452
552612	.060648	.285963	14.3949	14.6454	14.8132	14.6511	-286.95	836.501	764.965	137.829	93.9918	94.0830	.171816	.296452
568917	.645588	.862348	14.3787	14.6384	14.8020	14.6511	-287.11	836.347	766.967	204.283	96.4483	96.5582	-.24054	.296452
585136	1.75205	1.88825	14.3680	14.6296	14.8020	14.6394	-287.20	835.732	763.888	263.979	101.157	102.334	.171816	.296452
601360	2.85217	2.92450	14.3518	14.6296	14.8132	14.6292	-287.36	835.117	756.497	445.422	175.262	174.939	-.24054	.296452
618140	3.74604	3.78684	14.3532	14.6366	14.8257	14.6292	-287.20	835.117	772.355	630.960	760.323	746.915	-.24054	.296452
641903	4.26424	4.29265	14.3787	14.6524	14.8383	14.6350	-287.36	833.887	800.069	742.775	1406.80	1384.48	.171816	.296452

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78 14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT							
PARAMETER	WLO2-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B								
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41							
.660650	4.13258	4.15569	14.4433	14.6664	14.8578	14.6584	-287.46	833.887	799.607	736.734	1502.60	1493.39	-.24054	.296452	14.7855
.676915	3.89975	3.92940	14.4810	14.6786	14.9025	14.6934	-287.46	833.272	799.453	725.163	1486.63	1488.44	-.03436	-.32223	14.7855
.693125	3.71584	3.75547	14.4554	14.6926	14.9416	14.7328	-287.43	832.811	798.837	721.067	1468.21	1473.59	-.03436	.296452	14.7855
.709830	3.60260	3.64033	14.4433	14.7136	14.9709	14.7678	-287.30	832.657	796.528	718.712	1461.45	1466.16	-.03436	.296452	14.7855
.722127	3.54251	3.58967	14.4984	14.7223	14.9918	14.8043	-287.36	832.657	794.680	717.483	1460.64	1465.34	-.03436	.296452	14.7855
.738334	3.50838	3.55438	14.5321	14.7206	15.0085	14.8452	-287.43	832.042	794.680	717.893	1464.73	1468.64	-.03436	.296452	14.7855
.755116	3.48815	3.53170	14.5092	14.7153	15.0532	14.8773	-287.36	832.042	794.680	718.610	1465.55	1469.46	-.03436	.296452	14.7855
.771320	3.47547	3.51937	14.4917	14.7153	15.0867	14.8948	-287.43	831.581	794.680	717.893	1467.39	1470.50	-.03436	.502680	14.7855
.787541	3.46973	3.51209	14.5078	14.7258	15.0923	14.9021	-287.43	831.427	794.680	718.200	1469.85	1473.59	-.03436	.296452	14.7855
.804326	3.46580	3.50509	14.4702	14.7293	15.0825	14.9021	-287.46	831.427	795.604	718.610	1471.08	1474.62	-.03436	.296452	14.7855
.820532	3.46339	3.50061	14.4379	14.7153	15.0755	14.9021	-287.43	831.427	796.990	718.610	1471.28	1475.24	.171816	-.32223	15.1956
.844089	3.46339	3.49809	14.4016	14.7136	15.0588	14.8934	-287.43	830.812	797.144	717.893	1471.08	1473.80	-.24054	.296452	14.9906
.862108	3.45976	3.49249	14.3935	14.7206	15.0476	14.8919	-287.43	830.812	795.912	715.435	1467.39	1471.94	-.03436	.296452	14.7855
.878305	3.45614	3.48381	14.4662	14.7276	15.0588	14.8948	-287.46	830.812	795.758	716.562	1468.62	1472.15	-.03436	.296452	14.7855
.895079	3.45312	3.47904	14.5509	14.7293	15.0630	14.8919	-287.46	831.427	795.758	716.152	1468.82	1472.15	-.65290	.502680	14.7855
.911297	3.44889	3.47904	14.5415	14.7433	15.0699	14.8978	-287.46	830.197	797.760	716.664	1471.49	1476.06	.996535	.296452	14.7855
.927521	3.44889	3.48240	14.4984	14.7416	15.0811	14.8963	-287.71	830.351	797.760	716.152	1470.67	1474.41	.171816	.296452	14.7855
.944307	3.45251	3.48437	14.4608	14.7416	15.0867	14.8905	-287.46	830.197	796.528	716.152	1469.85	1473.80	-.03436	.296452	14.5804
.960507	3.45131	3.48128	14.4541	14.7363	15.0811	14.8846	-287.68	830.197	795.758	715.333	1469.44	1473.59	-.03436	.296452	14.7855
.976803	3.44527	3.47652	14.4756	14.7416	15.0588	14.8744	-287.71	830.197	795.142	713.797	1469.03	1472.76	-.24054	.296452	14.7855
.993041	3.44195	3.47344	14.5078	14.7573	15.0420	14.8686	-287.68	830.197	795.912	714.104	1469.44	1472.97	-.65290	.296452	14.7855
1.009262	3.44285	3.47372	14.5132	14.7573	15.0364	14.8569	-287.71	830.197	796.990	714.923	1470.67	1474.41	.171816	-.32223	12.3243
1.025957	3.45010	3.47456	14.4877	14.7433	15.0476	14.8511	-287.84	830.197	795.758	714.514	1469.44	1472.76	-.65290	.296452	14.7855
1.049478	3.45553	3.47036	14.5025	14.7223	15.0476	14.8613	-287.94	830.197	793.910	713.285	1467.39	1471.11	-.03436	.296452	14.7855
1.068421	3.45010	3.46812	14.6047	14.7258	15.0281	14.8686	-287.97	830.197	796.990	713.695	1468.21	1471.94	-.65290	.296452	14.7855
1.085198	3.45131	3.47260	14.6598	14.7293	15.0169	14.8773	-288.13	830.197	798.991	716.562	1472.30	1476.06	.171816	.502680	14.5804
1.101417	3.45614	3.47624	14.5953	14.7363	15.0267	14.8905	-287.97	830.197	799.453	716.562	1473.12	1476.89	.171816	.296452	14.7855
1.117598	3.46006	3.48016	14.4971	14.7521	15.0476	14.9036	-287.87	830.197	798.991	716.459	1473.74	1477.71	.171816	-.32223	14.7855
1.135413	3.45976	3.48212	14.4648	14.7293	15.0588	14.9153	-288.13	830.197	796.990	715.333	1471.08	1475.24	-.03436	.502680	14.5804
1.151631	3.45765	3.47904	14.4393	14.7258	15.0644	14.9182	-288.10	830.197	794.988	713.285	1469.85	1473.59	-.03436	.296452	14.7855
1.167846	3.45976	3.47092	14.4339	14.7363	15.0588	14.9138	-287.97	830.197	795.296	712.466	1468.21	1471.94	-.24054	.296452	14.5804
1.184164	3.45976	3.46448	14.4231	14.7503	15.0476	14.9080	-287.87	830.197	796.374	712.568	1468.82	1472.35	-.85908	.502680	14.5804
1.200370	3.45855	3.46364	14.4433	14.7416	15.0476	14.9021	-287.84	830.197	796.990	713.695	1470.26	1474.00	-.65290	.296452	14.7855
1.217067	3.45251	3.46812	14.4648	14.7293	15.0602	14.9021	-287.97	830.197	798.375	714.514	1472.10	1475.24	-.03436	.296452	14.3753
1.233377	3.45010	3.47316	14.4756	14.7416	15.0588	14.8934	-287.97	830.197	798.375	716.152	1473.74	1477.71	.171816	.296452	14.7855
1.257261	3.44044	3.47232	14.5038	14.7643	15.0364	14.8861	-287.97	830.197	796.990	713.797	1471.08	1474.83	-.65290	.296452	14.7855
1.276250	3.44074	3.47120	14.4783	14.7433	15.0364	14.8905	-287.84	830.197	796.990	714.514	1472.10	1475.45	.790355	.296452	14.7855
1.292281	3.44285	3.47036	14.4715	14.7416	15.0420	14.8919	-287.84	830.197	795.912	713.695	1470.26	1474.21	-.65290	.296452	14.7855
1.309506	3.44648	3.47036	14.4393	14.7241	15.0588	14.8919	-287.87	830.197	797.144	715.333	1473.12	1477.30	.171816	.296452	14.7855
1.326296	3.44889	3.47260	14.4487	14.7136	15.0644	14.9007	-287.97	830.197	797.144	715.640	1473.12	1477.71	.790355	.296452	14.7855
1.342506	3.44527	3.47344	14.4460	14.7136	15.0532	14.9021	-287.97	830.197	795.296	714.821	1472.92	1476.89	.790355	-.32223	14.7855
1.358792	3.44798	3.47484	14.4594	14.7258	15.0364	14.8919	-287.97	830.197	795.912	714.923	1473.74	1477.51	-.03436	.296452	14.7855
1.375035	3.45372	3.47596	14.4487	14.7346	15.0253	14.8890	-287.94	830.197	797.760	716.255	1475.38	1478.75	-.03436	.296452	14.7855
1.391241	3.45493	3.47596	14.4433	14.7346	15.0197	14.8788	-287.94	830.197	797.760	716.357	1475.38	1479.57	-.03436	.296452	14.7855
1.407931	3.45040	3.47568	14.4325	14.7223	15.0155	14.8715	-287.94	830.197	797.144	715.435	1473.74	1477.71	.171816	.296452	14.7855
1.424232	3.44798	3.47708	14.4137	14.7048	15.0071	14.8613	-287.97	830.197	795.912	715.743	1473.94	1478.54	-.03436	.296452	14.7855
1.441431	3.44648	3.47596	14.4164	14.6909	15.0085	14.8627	-287.97	830.197	794.526	714.104	1473.12	1477.10	.790355	.296452	14.7855
1.465012	3.43923	3.47008	14.4056	14.6944	15.0476	14.8657	-287.97	830.197	795.296	713.695	1471.28	1475.24	-.03436	.296452	14.5804
1.483107	3.43923	3.47232	14.3895	14.7136	15.0490	14.8613	-287.94	830.197	796.528	714.616	1473.74	1477.71	.790355	.296452	14.7855

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78

14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WL02-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B	
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA
NEEF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32
	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49	
1.499694	3.44285	3.47904	14.4285	14.7188	15.0532	14.8686	-287.94	830.197
1.516007	3.44406	3.48128	14.4971	14.7083	15.0602	14.8802	-287.97	830.197
1.532222	3.44285	3.47932	14.5186	14.6944	15.0699	14.8948	-287.97	830.197
1.548918	3.44285	3.47540	14.5025	14.7066	15.0811	14.9124	-287.97	830.197
1.565218	3.44527	3.47484	14.4863	14.7223	15.0811	14.9255	-287.97	830.197
1.581432	3.44557	3.47792	14.4783	14.7276	15.0755	14.9270	-287.94	830.197
1.598216	3.44587	3.47932	14.4877	14.7363	15.0699	14.9138	-287.97	830.197
1.614437	3.45010	3.48128	14.4608	14.7293	15.0923	14.9094	-288.10	830.197
1.630661	3.45523	3.48016	14.4151	14.7136	15.1146	14.9153	-288.22	830.197
1.647439	3.45735	3.47932	14.4003	14.7136	15.1258	14.9197	-288.22	830.197
1.670881	3.45976	3.48156	14.4272	14.7083	15.1146	14.9270	-288.19	830.197
1.690269	3.46006	3.48128	14.4594	14.7136	15.0923	14.9270	-288.22	830.197
1.707100	3.45855	3.47988	14.4433	14.7153	15.0713	14.9211	-288.22	830.197
1.720304	3.45040	3.47344	14.4124	14.7048	15.0755	14.9211	-288.22	830.197
1.736998	3.44164	3.46588	14.3841	14.6996	15.0867	14.9240	-288.22	830.197
1.753318	3.44164	3.46560	14.3787	14.7136	15.0923	14.9313	-288.19	830.197
1.769525	3.44315	3.46588	14.4003	14.7206	15.1048	14.9416	-288.35	830.197
1.786215	3.44074	3.46112	14.4231	14.7293	15.1090	14.9474	-288.35	830.197
1.802540	3.43923	3.45804	14.4487	14.7503	15.1160	14.9489	-288.38	830.197
1.818746	3.43349	3.45692	14.4863	14.7573	15.1048	14.9372	-288.38	830.197
1.835044	3.42715	3.45692	14.5092	14.7626	15.0923	14.9270	-288.48	830.197
1.851264	3.42987	3.46112	14.4890	14.7556	15.0699	14.9153	-288.48	830.197
1.877856	3.44406	3.47260	14.4473	14.7223	15.0267	14.8978	-288.48	830.197
1.894711	3.45251	3.48156	14.4433	14.7031	15.0378	14.8919	-288.73	830.197
1.911931	3.45855	3.48689	14.4110	14.6856	15.0755	14.9036	-288.61	830.197
1.928157	3.46248	3.48689	14.3747	14.6856	15.0937	14.9182	-288.67	830.197
1.944933	3.46339	3.48269	14.3949	14.6874	15.0978	14.9313	-288.61	830.197
1.962142	3.45976	3.47708	14.4083	14.7013	15.0937	14.9313	-288.61	830.197
1.978837	3.46218	3.47260	14.4056	14.7136	15.0923	14.9270	-288.61	830.197
1.995133	3.47063	3.47092	14.3855	14.7206	15.0923	14.9182	-288.70	830.197
2.012348	3.47426	3.47260	14.3518	14.7223	15.0811	14.8978	-288.83	830.197
2.029038	3.46459	3.47260	14.3734	14.7416	15.0616	14.8773	-288.73	830.197
2.045341	3.44919	3.47008	14.4285	14.7363	15.0602	14.8671	-288.73	830.197
2.061556	3.43953	3.46896	14.5186	14.7293	15.0644	14.8613	-288.70	830.197
2.085557	3.43319	3.46896	14.5616	14.7416	15.0476	14.8481	-288.73	830.197
2.103633	3.43832	3.47232	14.5832	14.7346	15.0141	14.8277	-288.86	830.197
2.120731	3.44557	3.47708	14.6248	14.7258	14.9918	14.8146	-288.99	830.351
2.137511	3.44315	3.47904	14.6316	14.7083	14.9806	14.8043	-288.99	830.197
2.153729	3.43802	3.47652	14.5724	14.6909	14.9862	14.8146	-288.99	830.197
2.169946	3.43319	3.47652	14.4957	14.6786	15.0085	14.8321	-288.99	830.197
2.186262	3.43349	3.47456	14.4662	14.6874	15.0420	14.8511	-288.96	830.197
2.202472	3.44406	3.47484	14.4769	14.6944	15.0532	14.8671	-288.99	830.197
2.219147	3.45493	3.47652	14.4662	14.7136	15.0532	14.8627	-289.15	830.197
2.236464	3.45523	3.47792	14.4285	14.7136	15.0532	14.8554	-289.08	830.197
2.252699	3.45010	3.47932	14.3895	14.7048	15.0504	14.8394	-289.21	830.197
2.268990	3.44285	3.47904	14.3855	14.7013	15.0476	14.8438	-289.12	830.197
2.293206	3.44044	3.47792	14.4030	14.6856	15.0644	14.8540	-289.21	830.197
2.310967	3.44044	3.47652	14.4016	14.6996	15.0602	14.8511	-289.40	830.197
2.327245	3.43923	3.47148	14.4218	14.7136	15.0532	14.8613	-289.24	830.197

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78

14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT							
PARAMETER	WL02-2	WH20P-2	WH20C-2	PGOT	PSIA	POJ	F-B	FCALB 31941B							
UNITS	LR-W	LR-W	LR-W	LR-W	LB-W	LB-W	DEG F	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
2.343447	3.44285	3.47232	14.4433	14.7013	15.0644	14.8627	-289.43	830.197	796.374	714.514	1478.65	1482.67	-.03436	.296452	14.5804
2.360154	3.44768	3.47568	14.4110	14.6856	15.0713	14.8744	-289.37	830.197	796.374	715.333	1479.47	1483.49	-.03436	.296452	14.5804
2.376460	3.44557	3.47596	14.3787	14.6856	15.0923	14.8919	-289.50	830.197	796.990	715.333	1480.29	1483.90	-.03436	.296452	14.5804
2.393675	3.44527	3.47820	14.3801	14.6996	15.0923	14.9021	-289.47	830.197	796.528	716.152	1480.49	1485.14	-.03436	.296452	14.7855
2.409975	3.44648	3.47652	14.4070	14.7013	15.0811	14.9007	-289.47	830.197	794.834	714.616	1479.26	1483.49	-.03436	.296452	14.7855
2.426200	3.44406	3.47008	14.4325	14.6926	15.0602	14.8978	-289.37	830.197	794.526	712.876	1475.58	1479.36	-.03436	.296452	14.7855
2.442402	3.44285	3.46448	14.4218	14.6926	15.0476	14.8905	-289.47	830.197	796.528	713.388	1477.83	1481.01	.171816	.296452	14.5804
2.459191	3.44648	3.46672	14.4433	14.6856	15.0476	14.8846	-289.69	830.197	796.220	714.923	1480.08	1483.49	.171816	.296452	14.7855
2.475394	3.44648	3.46812	14.4756	14.6874	15.0490	14.8802	-289.63	830.197	796.220	714.616	1479.47	1483.49	.171816	.296452	14.7855
2.498427	3.44919	3.47008	14.4917	14.7048	15.0420	14.8730	-289.47	830.197	796.374	714.514	1478.86	1482.67	-.65290	.502680	14.5804
2.516437	3.44919	3.46728	14.4648	14.7206	15.0476	14.8686	-289.47	830.197	796.990	714.514	1479.67	1483.49	-.03436	.296452	14.5804
2.532662	3.44527	3.46700	14.4164	14.7136	15.0602	14.8671	-289.47	830.197	796.374	713.797	1479.26	1483.49	.171816	.296452	14.7855
2.549445	3.44315	3.46812	14.3949	14.7013	15.0699	14.8744	-289.24	830.197	797.452	714.514	1479.67	1483.49	-.03436	.502680	14.5804
2.565671	3.45010	3.47008	14.4016	14.7013	15.0644	14.8788	-289.50	830.197	799.453	715.333	1481.93	1485.35	-.03436	-.32223	14.7855
2.581889	3.45493	3.47232	14.4325	14.7083	15.0476	14.8846	-289.47	830.197	797.606	715.435	1481.93	1485.97	-.03436	.296452	14.5804
2.598196	3.45251	3.47036	14.4379	14.7223	15.0281	14.8759	-289.34	830.197	797.606	714.514	1480.49	1485.14	-.03436	.296452	14.7855
2.614415	3.44889	3.46784	14.4769	14.7293	15.0267	14.8846	-289.24	830.197	796.990	714.514	1481.93	1485.55	-.65290	.296452	14.5804
2.631112	3.44678	3.46560	14.5307	14.7171	15.0364	14.8802	-289.37	830.197	794.988	713.388	1479.67	1483.49	-.03436	.296452	14.7855
2.648413	3.43802	3.46140	14.5294	14.7153	15.0420	14.8773	-289.59	830.197	793.910	711.237	1476.40	1480.19	.790355	.296452	14.7855
2.664558	3.43319	3.45916	14.4931	14.7153	15.0532	14.8788	-289.72	830.197	795.912	712.466	1476.40	1480.40	.790355	.296452	14.7855
2.680869	3.43440	3.46028	14.4487	14.7013	15.0699	14.8846	-289.59	830.197	797.144	713.797	1479.47	1483.49	.171816	-.32223	14.9906
2.704280	3.44527	3.46000	14.4352	14.6944	15.0811	14.8963	-289.59	830.197	798.837	716.152	1480.08	1483.70	.790355	-.32223	14.7855
2.717178	3.45251	3.46364	14.4433	14.7206	15.0699	14.9021	-289.59	830.197	800.223	716.152	1480.49	1484.52	-.03436	.296452	14.7855
2.733322	3.45614	3.46784	14.4433	14.7503	15.0699	14.8948	-289.66	830.197	804.380	716.971	1482.95	1486.79	-.03436	.296452	14.7855
2.749542	3.42956	3.44235	14.4500	14.7608	15.0602	14.8802	-289.85	830.197	835.019	679.290	1418.67	1422.64	-.03436	.296452	14.5804
2.766231	3.15174	3.11943	14.4594	14.7538	15.0476	14.8700	-289.66	830.197	965.272	489.451	886.834	904.296	-.65290	.296452	14.7855
2.782542	2.40886	2.31591	14.4594	14.7433	15.0364	14.8613	-289.66	830.812	827.629	291.113	498.294	521.672	-.65290	.296452	14.7855
2.798744	1.65874	1.60341	14.4339	14.7416	15.0197	14.8511	-289.50	831.427	904.610	188.310	372.397	389.456	-.65290	.296452	14.7855
2.815057	1.08980	1.12869	14.4083	14.7223	15.0155	14.8554	-289.59	831.581	837.020	156.260	335.550	341.808	-.03436	.296452	14.7855
2.831278	.831609	.889235	14.4016	14.7206	15.0253	14.8613	-289.63	832.042	856.112	151.755	284.167	287.148	-.03436	.296452	14.5804
2.847503	.768495	.803813	14.4325	14.6996	15.0364	14.8554	-289.72	832.657	873.356	147.249	214.975	217.843	-.65290	-.32223	14.7855
2.864282	.790238	.789250	14.4231	14.6804	15.0309	14.8438	-289.75	832.657	813.156	136.293	159.704	162.563	-1.0653	-.32223	14.7855
2.881508	.844594	.745559	14.4514	14.6594	15.0141	14.8204	-290.01	832.811	894.911	122.265	129.407	132.036	-.65290	.296452	14.5804
2.905013	.935189	.724273	14.5347	14.6436	14.9695	14.7824	-289.75	833.272	820.084	99.3289	113.030	114.091	-.03436	-.32223	15.1956
2.923137	.935189	.781688	14.4662	14.6314	14.9360	14.7620	-289.72	833.887	881.516	83.0482	110.369	110.584	-.03436	.296452	14.7855
2.939235	.857882	.787849	14.3787	14.6226	14.9095	14.7445	-289.72	833.887	802.994	70.6585	106.274	106.459	-.03436	.296452	14.7855
2.957008	.828891	.758162	14.3747	14.6314	14.8467	14.7284	-290.01	833.887	892.293	60.4191	106.274	106.459	-.03436	.296452	14.7855
2.973222	.845802	.756481	14.4433	14.6594	14.8704	14.7211	-289.75	834.195	832.247	52.6371	103.204	103.365	-.03436	.296452	14.5804
2.989442	.869055	.785889	14.4594	14.6629	14.8411	14.6992	-289.88	834.502	854.418	47.7222	102.385	103.159	-.03436	.296452	14.7855
3.006218	.844594	.795131	14.3787	14.6524	14.8146	14.6803	-289.75	834.502	868.583	45.3671	103.204	103.984	.171816	.296452	14.7855
3.022435	.741920	.764603	14.3088	14.6296	14.8076	14.6744	-289.88	835.117	813.618	44.8551	101.361	102.334	-.03436	.296452	14.7855
3.038785	.679410	.739957	14.2765	14.6139	14.8034	14.6686	-289.85	835.117	888.906	44.7527	101.157	102.334	-.03436	.296452	14.5804
3.054972	.683940	.730435	14.3303	14.6104	14.8020	14.6598	-289.75	835.117	827.321	44.8551	102.385	102.540	-.03436	-.32223	14.7855
3.071183	.715346	.712230	14.3626	14.6174	14.7908	14.6525	-289.88	835.117	865.350	44.8551	102.180	102.540	-.03436	.296452	14.5804
3.087870	.734673	.667139	14.3411	14.6296	14.7811	14.6452	-289.88	835.117	863.502	44.9575	102.999	103.159	-.03436	.296452	14.5804
3.111457	.669747	.577796	14.3357	14.6524	14.7685	14.6073	-289.75	835.271	861.193	45.2647	101.975	102.334	-.03436	-.32223	14.7855
3.131295	.609350	.572195	14.3276	14.6436	14.7462	14.6044	-289.75	835.117	857.959	45.5719	101.975	102.540	-.03436	.296452	14.7855
3.147737	.587305	.605523	14.3518	14.6366	14.7476	14.6044	-289.98	835.732	827.167	46.0839	103.204	103.984	.171816	-.32223	14.7855
3.163945	.581266	.635491	14.3787	14.6436	14.7741	14.6102	-290.01	835.732	885.057	46.0839	103.204	103.984	.171816	.296452	14.5804

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78

14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	PGOT	POV	POJ	F-A	F-B	FCALA 31941A	PGFT				
PARAMETER	WLO2-2	WH20P-2	WH20C-2	DEG F	PSIA	PSIA	PSIA	LBS	LBS	FCALB 31941B	PSIA				
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W				
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
3.181162	.562241	.608044	14.3949	14.6454	14.8132	14.6146	-289.88	835.732	827.013	46.0839	102.999	103.159	-.03436	.296452	14.5804
3.197945	.518453	.565193	14.4056	14.6576	14.8243	14.6219	-289.75	835.732	870.122	46.0839	102.180	102.334	.171816	.296452	14.7855
3.215157	.447186	.557631	14.4016	14.6594	14.8076	14.6175	-289.75	835.732	862.116	46.0839	102.180	102.540	-.03436	.296452	14.5804
3.231851	.421819	.551750	14.3572	14.6576	14.7964	14.6117	-289.75	835.886	829.784	46.0839	102.385	102.540	-.03436	.296452	14.5804
3.248159	.465304	.512540	14.3518	14.6454	14.8132	14.6131	-289.88	835.886	883.979	46.1863	101.157	102.334	-.03436	.296452	14.7855
3.264367	.499429	.477812	14.3492	14.6366	14.8355	14.6219	-289.98	836.347	833.325	46.2887	101.566	102.334	-.03436	.296452	14.7855
3.281067	.489463	.500497	14.3411	14.6454	14.8578	14.6336	-289.85	835.886	866.427	46.4934	102.180	102.334	-.03436	.296452	14.7855
3.297372	.447488	.535226	14.3263	14.6506	14.8690	14.6408	-289.98	836.347	865.350	46.1863	102.999	102.540	-.03436	.296452	14.7855
3.323284	.363838	.532145	14.3586	14.6594	14.8690	14.6336	-289.88	836.347	869.353	46.4934	102.385	103.159	-.03436	.32223	14.7855
3.341605	.371086	.488174	14.3801	14.6664	14.8592	14.6277	-289.88	836.347	856.266	46.4934	101.975	102.334	-.03436	.296452	14.5804
3.357927	.409740	.418437	14.4056	14.6664	14.8355	14.6277	-290.01	836.501	840.715	46.4934	101.566	102.334	-.03436	.296452	14.5804
3.374137	.474968	.396871	14.4164	14.6629	14.8132	14.6277	-289.91	836.347	881.670	46.4934	102.999	102.540	-.03436	.296452	14.5804
3.390826	.499127	.394631	14.4056	14.6594	14.8020	14.6277	-289.98	836.347	833.941	46.9030	101.566	102.334	-.03436	.32223	15.1956
3.407136	.500335	.371105	14.3707	14.6506	14.8020	14.6277	-289.88	836.347	870.892	46.4934	102.999	103.159	-.03436	.296452	14.5804
3.423355	.478592	.388189	14.3518	14.6454	14.8132	14.6292	-289.88	836.501	863.348	46.1863	102.180	102.334	-.03436	.296452	14.7855
3.440126	.400076	.380593	14.3895	14.6454	14.8034	14.6336	-289.88	836.501	838.252	46.4934	101.157	102.334	-.03436	.32223	14.9906
3.456346	.365046	.361582	14.4298	14.6454	14.7908	14.6277	-289.75	836.501	881.824	46.9030	101.566	102.334	-.03436	.502680	14.5804
3.472572	.352967	.312290	14.4325	14.6506	14.7797	14.6219	-290.01	836.962	840.869	46.9030	100.133	100.890	-.65290	.296452	14.5804
3.489367	.348135	.335536	14.4164	14.6419	14.7741	14.6175	-289.75	836.962	865.504	46.9030	100.543	100.890	-.44672	.32223	14.7855
3.505558	.359007	.370545	14.3707	14.6384	14.7741	14.6175	-289.88	836.962	867.967	46.9030	101.157	102.334	-.03436	.296452	14.5804
3.531688	.352967	.391830	14.4070	14.6436	14.7685	14.6131	-290.01	836.962	863.964	47.0054	102.999	103.159	-.03436	.296452	14.7855
3.548360	.362630	.402473	14.4890	14.6576	14.7699	14.6117	-289.88	837.577	867.351	46.9030	101.361	102.334	-.03436	.296452	14.7855
3.564550	.362630	.398552	14.5522	14.6646	14.7741	14.6117	-289.98	837.577	838.252	47.0054	101.157	102.334	-.03436	.296452	14.7855
3.581859	.367462	.398272	14.5307	14.6576	14.7797	14.6073	-289.88	836.962	879.668	47.0054	101.157	101.715	-.65290	.296452	14.7855
3.598067	.363838	.397431	14.4702	14.6454	14.7908	14.6044	-289.88	837.577	847.336	47.0054	101.157	102.334	-.03436	.296452	14.7855
3.614285	.375918	.398552	14.4218	14.6296	14.8020	14.6044	-289.88	837.577	859.807	46.9030	100.747	102.334	-.03436	.296452	14.5804
3.631059	.378334	.409754	14.4285	14.6086	14.8020	14.6146	-289.75	836.962	871.508	47.0054	100.747	101.509	-.44672	.296452	14.7855
3.647264	.319447	.401632	14.4594	14.6034	14.7964	14.6233	-289.88	837.577	838.868	47.0054	100.952	102.334	-.03436	.296452	14.7855
3.663966	.282907	.394071	14.4487	14.6104	14.8020	14.6336	-290.17	837.577	879.514	46.9030	101.157	102.334	-.03436	.296452	14.7855
3.680265	.265996	.399672	14.4016	14.6174	14.8243	14.6423	-290.01	837.577	848.875	46.9030	100.543	100.890	-.65290	.296452	14.7855
3.696473	.210733	.391830	14.3787	14.6296	14.8467	14.6511	-289.94	837.577	854.418	46.9030	101.157	102.334	-.03436	.502680	14.5804
3.713180	.197144	.398272	14.3787	14.6576	14.8578	14.6511	-289.88	837.577	872.740	46.9030	102.180	102.540	-.03436	.502680	14.5804
3.729705	.187481	.400792	14.4070	14.6594	14.8355	14.6394	-289.72	837.577	848.722	46.9030	100.747	101.096	-.85908	.296452	14.5804
3.747720	.209223	.353180	14.4083	14.6384	14.8243	14.6336	-289.98	837.577	872.740	47.0054	101.157	102.334	-.03436	.296452	14.5804
3.764491	.211639	.311170	14.3518	14.6104	14.8299	14.6408	-289.85	837.577	836.558	47.0054	100.133	100.684	-.03436	.296452	14.5804
3.780707	.203184	.351500	14.3196	14.6016	14.8467	14.6525	-289.98	837.577	873.972	47.0054	100.747	101.509	-.65290	.296452	14.5804
3.796926	.224927	.377266	14.3209	14.6086	14.8578	14.6613	-289.88	837.577	853.802	47.0054	100.952	102.334	-.03436	.296452	14.7855
3.813237	.269620	.377266	14.3518	14.6314	14.8578	14.6642	-289.85	837.577	846.720	47.0054	101.157	102.334	-.03436	.502680	14.5804
3.829447	.334848	.400512	14.3518	14.6436	14.8578	14.6627	-289.88	837.577	875.357	47.0054	101.157	102.334	-.03436	.296452	14.7855
3.847147	.369878	.411435	14.3518	14.6384	14.8578	14.6584	-289.88	837.577	837.790	47.0054	100.747	100.890	-.65290	.296452	14.5804
3.863446	.361423	.400512	14.3841	14.6436	14.8467	14.6525	-289.91	837.577	867.505	46.9030	100.747	100.890	-.03436	.296452	14.5804
3.879654	.309784	.391550	14.3787	14.6401	14.8188	14.6452	-289.72	837.577	861.193	46.9030	100.747	101.096	-.85908	.296452	14.5804
3.895959	.243046	.383988	14.3841	14.6436	14.8076	14.6452	-289.75	837.577	839.638	46.9030	99.7237	99.8585	-.65290	.296452	14.7855
3.912187	.225229	.378107	14.4218	14.6384	14.8188	14.6394	-289.75	837.577	876.897	47.0054	100.338	100.684	-.44672	.502680	14.5804
3.935702	.209223	.394911	14.4325	14.6436	14.8355	14.6233	-291.00	837.577	836.558	47.0054	100.543	100.684	-.03436	.296452	14.7855
3.954206	.208016	.370545	14.4393	14.6384	14.8355	14.6117	-289.85	837.577	876.897	47.0054	99.9284	100.684	-.03436	.296452	14.7855
3.970410	.246669	.323213	14.4446	14.6384	14.8383	14.6044	-289.98	837.577	846.874	46.9030	99.9284	100.684	-.03436	.296452	14.5804
3.987105	.273546	.262718	14.4083	14.6314	14.8243	14.6000	-289.88	837.577	855.034	47.0054	99.9284	100.684	-.03436	.296452	14.7855
4.003410	.310690	.230509	14.3626	14.6244	14.7964	14.5941	-289.75	837.577	871.970	47.0054	98.9048	99.0334	-.65290	.296452	14.7855

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78

14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WLO2-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B	
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	11/ 32
4.019613	.264788	.231350	14.3357	14.6226	14.7908	14.6000	-289.75	837.577
4.036927	.211941	.307529	14.3223	14.6139	14.7908	14.6102	-289.75	837.577
4.053142	.195936	.369144	14.3895	14.6174	14.7922	14.6175	-289.85	837.577
4.069369	.181743	.380347	14.4030	14.6296	14.8020	14.6219	-289.75	837.731
4.086153	.198352	.385948	14.3841	14.6384	14.8034	14.6175	-289.75	837.731
4.102362	.220095	.391550	14.4016	14.6436	14.8132	14.6219	-289.72	837.731
4.119052	.270828	.385108	14.3908	14.6384	14.8257	14.6219	-289.75	837.731
4.145094	.310690	.395191	14.3680	14.6489	14.8257	14.6175	-289.98	837.731
4.164037	.232174	.379227	14.3572	14.6454	14.7853	14.6102	-289.75	837.731
4.180699	.247877	.351220	14.3303	14.6296	14.7685	14.6117	-289.72	837.885
4.196997	.302536	.277561	14.3034	14.6139	14.7685	14.6219	-289.75	837.731
4.213218	.309482	.222387	14.2833	14.6069	14.7797	14.6292	-289.75	837.731
4.229911	.282907	.217626	14.3196	14.6226	14.7797	14.6350	-289.75	837.731
4.246216	.230060	.230229	14.3787	14.6454	14.7629	14.6350	-289.75	837.731
4.262432	.212847	.224908	14.3787	14.6646	14.7476	14.6277	-289.98	837.731
4.279220	.222511	.232190	14.3411	14.6594	14.7574	14.6219	-289.75	837.731
4.295434	.228550	.279802	14.3357	14.6454	14.7588	14.6219	-289.72	838.192
4.311659	.216471	.345618	14.3518	14.6314	14.7574	14.6131	-289.75	838.192
4.329433	.222813	.360182	14.3478	14.6226	14.7588	14.6146	-289.72	837.885
4.354840	.294986	.388749	14.3209	14.6139	14.7741	14.6292	-289.75	837.577
4.374195	.336660	.378309	14.3518	14.6226	14.7908	14.6452	-289.75	838.192
4.390333	.342096	.370265	14.3626	14.6384	14.7908	14.6452	-289.72	838.192
4.406535	.343304	.343378	14.3653	14.6454	14.8132	14.6408	-289.75	838.192
4.423230	.256333	.262998	14.3586	14.6454	14.8355	14.6408	-289.63	838.192
4.439543	.211035	.218186	14.3787	14.6419	14.8355	14.6408	-289.63	838.038
4.455763	.222511	.214265	14.3653	14.6314	14.8313	14.6467	-289.75	838.192
4.472069	.182649	.248154	14.3411	14.6296	14.8578	14.6525	-289.75	838.192
4.488277	.179025	.336656	14.3693	14.6244	14.8913	14.6642	-289.75	838.192
4.504493	.183857	.378107	14.3787	14.6296	14.9137	14.6759	-289.72	837.885
4.521284	.179025	.379507	14.3680	14.6296	14.9081	14.6817	-289.72	838.192
4.537495	.201976	.376146	14.3666	14.6436	14.8802	14.6744	-289.85	838.038
4.560476	.200748	.370545	14.3908	14.6646	14.8132	14.6511	-289.72	837.885
4.579693	.200362	.329934	14.4339	14.6846	14.7797	14.6350	-289.66	838.192
4.595199	.198233	.275041	14.4251	14.6634	14.7685	14.6277	-289.75	838.192
4.611496	.198671	.230509	14.3885	14.6572	14.7685	14.6306	-289.75	838.192
4.628158	.210357	.230229	14.3841	14.6506	14.7853	14.6394	-289.72	838.192
4.644408	.195936	.234711	14.4218	14.6384	14.8132	14.6408	-289.72	838.192
4.661190	.212847	.297726	14.4783	14.6384	14.8243	14.6438	-289.75	838.192
4.677393	.265996	.349259	14.4863	14.6384	14.8146	14.6394	-289.75	838.192
4.694092	.263580	.353460	14.4393	14.6226	14.8034	14.6350	-289.88	837.885
4.710407	.209525	.372505	14.3976	14.6174	14.7853	14.6292	-289.72	838.192
4.719620	.157886	.394071	14.3949	14.6226	14.7685	14.6219	-289.85	838.192
4.736307	.141579	.379507	14.3801	14.6156	14.7476	14.6175	-289.75	838.192
4.759872	.185065	.306409	14.3747	14.6121	14.7350	14.6044	-289.59	838.192
4.778665	.187481	.233509	14.3478	14.6104	14.7476	14.6044	-289.75	838.192
4.795154	.197144	.230310	14.3411	14.6139	14.7685	14.6146	-289.75	838.807
4.811370	.215263	.243953	14.3357	14.6174	14.7853	14.6336	-289.63	838.192
4.827583	.197144	.205863	14.3518	14.6296	14.8020	14.6452	-289.59	838.192
4.844368	.176609	.216786	14.3680	14.6664	14.8076	14.6511	-289.63	838.192



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78 14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WLO2-2	WH20P-2	WH20C-2	DEG F	PGOT	POJ	F-B	FCALB 31941B
UNITS	LB-W	LB-W	LB-W	LB-W	PSIA	PSIA	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	11/ 32
4.860572	.168154	.224908	14.3626	14.6804	14.7908	14.6408	-289.75	838.192
4.876808	.121045	.196621	14.3371	14.6664	14.7699	14.6394	-289.75	838.192
4.893108	.086015	.199142	14.3142	14.6506	14.7811	14.6511	-289.72	838.192
4.910321	.078767	.199142	14.3303	14.6384	14.8020	14.6569	-289.50	838.192
4.927017	.094470	.206703	14.3895	14.6366	14.8146	14.6569	-289.59	838.192
4.944320	.139164	.236951	14.4433	14.6384	14.8355	14.6511	-289.72	838.192
4.970074	.162114	.206703	14.4379	14.6296	14.8411	14.6336	-289.72	838.192
4.986546	.187481	.201382	14.4325	14.6226	14.8132	14.6219	-289.69	838.807
5.003760	.176911	.204743	14.4487	14.6314	14.7797	14.6102	-289.75	838.807
5.020990	.116515	.214265	14.4433	14.6244	14.7588	14.5971	-289.88	838.192
5.037307	.090846	.220147	14.3841	14.6139	14.7685	14.5883	-289.75	838.192
5.053510	.111381	.201662	14.3478	14.6156	14.7685	14.5868	-289.66	838.192
5.070201	.133124	.205303	14.3411	14.6296	14.7685	14.5883	-289.72	838.192
5.086510	.176911	.216786	14.3572	14.6366	14.7811	14.6044	-289.63	838.192
5.102724	.157283	.205863	14.3572	14.6366	14.7964	14.6175	-289.63	838.807
5.119027	.094470	.222667	14.3855	14.6454	14.7936	14.6233	-289.59	838.807
5.135238	.037697	.249554	14.4527	14.6576	14.7853	14.6233	-289.63	838.807
5.151475	.005385	.215666	14.4702	14.6664	14.7797	14.6277	-289.47	838.807
5.175946	.058232	.127963	14.4325	14.6366	14.7853	14.6350	-289.98	838.192
5.193965	.116515	.140887	14.4272	14.6314	14.8132	14.6525	-289.59	838.807
5.210726	.097188	.154050	14.4877	14.6436	14.8243	14.6525	-289.59	838.807
5.227036	.050985	.142567	14.4863	14.6594	14.8188	14.6336	-289.50	838.807
5.243240	.015955	.110079	14.4662	14.6594	14.8257	14.6277	-289.66	838.192
5.260010	.023504	.103918	14.4339	14.6296	14.8243	14.6292	-289.72	838.807
5.276238	.092054	.128844	14.4231	14.6016	14.8188	14.6336	-289.75	838.807
5.292459	.143905	.203343	14.5092	14.6034	14.8299	14.6408	-289.75	838.807
5.309238	.187481	.292965	14.5845	14.6139	14.8369	14.6511	-289.50	838.807
5.325442	.212847	.312010	14.6275	14.6296	14.8299	14.6511	-289.47	838.807
5.341800	.200768	.242552	14.5993	14.6454	14.8243	14.6452	-289.75	838.807
5.357987	.154867	.133885	14.5509	14.6576	14.8299	14.6350	-289.47	838.807
5.381598	.060648	.040902	14.4917	14.6384	14.8578	14.6277	-289.50	838.192
5.400872	.012633	.123243	14.4877	14.6174	14.8704	14.6219	-289.50	838.807
5.417173	.004428	.199142	14.5025	14.6156	14.8578	14.6131	-289.50	838.807
5.433391	.009911	.209504	14.5186	14.6226	14.8355	14.6117	-289.47	838.807
5.450171	.009911	.147609	14.5200	14.6244	14.8132	14.6102	-288.96	838.192
5.466378	.007000	.077871	14.5078	14.6296	14.7797	14.5985	-289.50	838.192
5.482605	.00669	.082352	14.4823	14.6296	14.7588	14.5825	-289.24	838.807
5.499380	.00579	.156571	14.4487	14.6191	14.7797	14.5868	-289.24	838.807
5.515596	.00458	.205863	14.4863	14.6069	14.8020	14.5985	-289.24	838.807
5.531829	.00428	.194380	14.5240	14.6034	14.8160	14.6044	-289.24	838.807
5.549134	.005083	.126043	14.4931	14.6296	14.8146	14.6044	-289.34	838.807
5.565345	.046153	.055746	14.4446	14.6454	14.8034	14.6102	-289.40	838.192
5.588403	.066688	.005333	14.4083	14.6314	14.7922	14.6219	-289.47	838.807
5.607103	.087223	.048464	14.3841	14.6314	14.7908	14.6219	-289.47	838.192
5.623161	.075143	.116241	14.3693	14.6296	14.8020	14.6233	-289.69	838.807
5.639937	.043737	.147609	14.3693	14.6314	14.8132	14.6336	-289.72	838.807
5.656160	.017163	.164133	14.3734	14.6296	14.8132	14.6408	-289.59	838.807
5.672860	.002668	.155171	14.3693	14.6314	14.8132	14.6452	-289.50	838.807
5.689167	.00216	.103638	14.3801	14.6366	14.8257	14.6467	-289.40	838.807

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78 14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT							
PARAMETER	WL02-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B								
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
5.706383	-.00337	.047904	14.3465	14.6296	14.8355	14.6511	-289.47	838.807	863.502	46.0839	98.0860	98.2083	-.03436	.502680	14.5804
46805.7241	-.00337	.012615	14.3155	14.6226	14.8411	14.6584	-289.37	838.192	851.955	33.1822	97.6766	98.2083	-.03436	.296452	14.7855
46805.7404	-.00337	-.00279	14.3518	14.6156	14.8467	14.6700	-289.24	838.807	859.961	19.8709	97.8813	97.5896	-.03436	.296452	14.7855
46805.7566	-.00216	-.00699	14.3814	14.6244	14.8467	14.6773	-289.37	838.807	861.654	14.1368	97.4718	97.7958	-.03436	.296452	14.7855
46805.7729	-.00216	-.00727	14.3787	14.6366	14.8411	14.6700	-289.59	838.807	851.339	13.3177	98.2907	97.7958	-.03436	.296452	14.7855
46805.7973	-.00216	.057986	14.3357	14.6384	14.8355	14.6686	-289.50	838.807	862.886	14.1368	98.2907	99.0334	-.65290	.502680	14.5804
46805.8164	-.00186	.130244	14.3250	14.6384	14.8257	14.6584	-289.37	838.807	853.648	14.5464	97.4718	97.5896	-.03436	.296452	14.7855
46805.8331	-.00096	.109519	14.3142	14.6314	14.8243	14.6569	-289.34	838.807	856.112	14.5464	97.4718	97.3833	-.03436	.296452	14.5804
46805.8503	-.00096	.061067	14.2927	14.6226	14.8397	14.6569	-289.47	838.807	862.116	14.5464	97.2671	97.3833	-.03436	.296452	14.7855
46805.8670	-.00096	.021857	14.3223	14.6174	14.8522	14.6613	-289.50	838.192	853.187	14.5464	98.2907	98.2083	-.03436	.296452	14.7855
46805.8833	-.00096	.003092	14.3787	14.6366	14.8467	14.6613	-289.50	838.807	857.036	14.5464	98.2907	99.0334	-.24054	.296452	14.7855
46805.9005	.000252	-.00363	14.3935	14.6436	14.8299	14.6613	-289.50	838.807	861.193	14.5464	98.2907	99.0334	-.44672	.296452	14.7855
46805.9172	.000252	-.00503	14.3734	14.6436	14.8188	14.6525	-289.63	838.192	853.648	14.5464	98.2907	98.2083	-.03436	.296452	14.7855
46805.9345	.000252	-.00391	14.3734	14.6576	14.8132	14.6394	-289.50	838.807	858.113	14.5464	98.9048	99.0334	-.44672	.502680	14.5804
46805.9507	.000252	-.00279	14.3734	14.6524	14.8020	14.6350	-289.40	838.807	861.039	14.5464	98.7001	99.0334	-.65290	.296452	14.5804
46805.9670	-.00096	-.00251	14.3908	14.6506	14.7964	14.6292	-289.50	838.807	853.032	14.5464	99.1095	99.2397	-.03436	.296452	14.7855
46805.9832	-.00096	-.00195	14.3895	14.6454	14.8020	14.6219	-289.47	838.807	858.729	14.5464	98.2907	99.0334	-.65290	.502680	14.5804
46806.0067	.000252	-.00195	14.3357	14.6366	14.7964	14.6058	-289.34	838.807	856.728	14.4440	98.0860	98.2083	-.03436	.296452	14.5804
46806.0248	-.00096	-.00139	14.3250	14.6331	14.7853	14.6044	-289.37	838.807	855.496	14.5464	98.0860	97.7958	-.24054	-.11600	14.5804
46806.0410	.000252	-.00111	14.3303	14.6314	14.7741	14.5941	-289.24	838.807	861.962	14.5464	98.0860	98.2083	.171816	.296452	14.5804
46806.0573	.000252	-.00083	14.3680	14.6436	14.7574	14.5854	-289.47	838.807	855.496	14.5464	98.0860	97.7958	-.65290	.296452	14.5804
46806.0735	.000252	-.00083	14.4231	14.6506	14.7350	14.5766	-289.50	838.807	856.728	14.5464	98.9048	99.0334	-.44672	.296452	14.5804
46806.0897	.000252	-.00083	14.4662	14.6419	14.7239	14.5810	-289.37	838.807	861.654	14.5464	98.7001	99.0334	-.65290	.296452	14.7855
46806.1065	.000252	-.00083	14.4554	14.6174	14.7253	14.5898	-289.37	838.807	855.034	14.5464	97.2671	97.5896	-.03436	.502680	14.5804
46806.1227	.000252	-.00083	14.4056	14.5894	14.7518	14.6058	-289.24	838.192	858.113	14.5464	98.0860	98.2083	-.03436	.296452	14.5804
46806.1389	.000252	-.00083	14.3693	14.5876	14.7853	14.6277	-289.21	838.807	861.193	14.5464	98.2907	97.7958	-.65290	.296452	14.5804
46806.1552	.000252	-.00083	14.3787	14.6086	14.8020	14.6306	-289.37	838.192	855.496	14.5464	98.2907	99.0334	-.65290	.296452	14.5804
46806.1723	.000252	-.00083	14.3895	14.6296	14.8020	14.6336	-289.47	838.192	859.345	14.5464	99.1095	99.0334	-.65290	.502680	14.5804

END FILE

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78

14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	PFV-1		PFVD	PGH20T		PH20-OUT		PC-1	PC-2	TFJ		TOJ		TIN	
PARAMETER	PFV-2			PFJ		PH20-J				POJI	TBL	DEG F	DEG F	TAO	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169
-183378	1446.05	1445.83	1450.86	14.8266	1182.96	1107.93	158.510	14.3907	14.6397	14.6715	76.9134	-271.27	77.7393	38.3179	115.047
-167071	1446.05	1445.83	1450.70	14.8266	1182.96	1107.52	157.237	14.6013	14.7431	14.6715	77.0078	-271.20	78.4469	33.4509	112.199
-150847	1445.44	1445.52	1450.70	14.7236	1182.96	1107.93	161.056	14.3907	14.4330	14.6715	77.0213	-271.00	78.8173	35.1952	109.701
-134161	1445.44	1444.90	1450.70	14.8266	1182.96	1112.23	168.058	14.6013	14.6397	14.6715	77.0213	-271.27	78.8173	44.8062	102.064
-117853	1445.44	1444.90	1450.70	14.8266	1182.96	1112.43	165.034	14.6013	14.7431	14.8821	77.0483	-271.60	78.4805	61.9988	94.1620
-101639	1445.44	1444.90	1450.70	14.8266	1182.96	1109.57	161.215	14.6013	14.7431	14.8821	77.0753	-271.81	78.6153	68.2963	90.3168
-084841	1445.44	1444.90	1450.70	15.0327	1182.96	1108.75	157.237	14.6013	14.7431	14.8821	77.0753	-272.01	78.4805	61.7582	96.8040
-068647	1445.44	1444.90	1450.54	14.4145	1182.96	1107.52	153.418	14.6013	14.7431	14.8821	77.0213	-271.81	78.7163	54.9932	103.243
-052407	1445.44	1445.52	1450.70	14.8266	1182.34	1106.29	153.896	14.3907	14.7431	14.8821	77.0213	-271.81	78.7499	59.0040	107.521
-035628	1445.44	1445.21	1450.70	14.8266	1182.96	1105.88	156.124	14.3907	14.7431	14.8821	77.1158	-272.34	78.6153	55.8246	100.095
-019416	1445.44	1445.21	1450.70	14.8266	1182.96	1108.75	163.761	14.3907	14.7431	14.8821	77.1293	-272.88	78.4805	55.6516	96.5401
-003192	1445.44	1445.21	1450.54	14.4145	1182.96	1113.86	171.399	14.4960	14.7431	14.8821	77.1158	-272.34	78.5480	49.6371	103.341
021770	1445.44	1444.90	1450.70	14.8266	1182.96	1110.79	168.694	14.3907	14.7431	14.8821	77.0078	-270.73	78.4469	58.2448	99.0432
040453	1445.44	1445.21	1450.70	14.8266	1182.55	1107.93	164.875	14.6013	14.6397	14.6715	76.9134	-270.53	78.2786	51.2059	103.341
056959	1444.83	1444.43	1450.08	14.8266	1182.96	1107.93	161.215	14.6013	14.7431	22.0446	77.0078	-269.66	79.0193	8.89685	125.103
073282	1440.55	1440.85	1445.89	16.8872	1182.96	1108.34	159.147	14.6013	14.7431	46.0600	77.2102	-269.66	80.5997	11.5208	127.719
089493	1434.44	1434.95	1440.14	19.7721	1182.96	1108.75	160.420	14.7066	14.7431	168.033	77.4800	-270.13	79.8267	39.3088	109.376
106279	1427.72	1428.41	1433.31	22.6569	1182.96	1109.98	163.761	14.8119	14.8464	315.706	77.5879	-270.40	77.2673	61.1737	89.3862
122502	1421.60	1422.19	1427.72	24.6145	1182.96	1112.43	165.512	15.0224	14.8464	385.330	77.5609	-270.20	74.9706	76.2021	81.2994
139715	1415.49	1415.66	1421.04	25.7478	1182.96	1111.20	165.671	14.9171	14.8464	400.813	77.3451	-269.12	73.2778	42.5203	108.335
156496	1409.38	1410.06	1415.29	26.7781	1182.96	1107.93	163.761	14.8119	14.8464	396.284	77.2102	-267.52	72.5319	36.2968	117.821
172710	1403.88	1404.62	1409.70	27.1902	1182.96	1106.29	161.056	14.8119	14.8464	390.070	77.0483	-267.52	71.6835	45.0519	103.865
189928	1400.82	1400.73	1405.97	28.2205	1182.55	1107.52	156.124	14.8119	14.8464	387.331	76.8054	-266.99	71.0380	37.9991	110.285
206191	1398.99	1399.18	1404.42	28.2205	1182.96	1107.32	151.668	14.7066	14.8464	387.120	76.5084	-265.92	70.6302	10.2098	126.699
229784	1399.60	1399.80	1404.73	29.1478	1182.96	1112.43	162.329	14.3907	14.7431	388.806	76.3463	-265.85	69.8137	10.7927	125.614
247857	1400.82	1400.42	1405.51	29.4569	1182.96	1114.07	161.215	14.8119	14.7431	390.386	76.1572	-264.59	69.8137	-16.102	139.689
263977	1400.82	1401.67	1406.60	29.8690	1182.34	1107.93	150.872	14.8119	14.7431	391.228	76.0356	-264.32	69.7797	4.94360	132.994
280194	1402.35	1401.98	1407.22	29.8690	1182.34	1102.40	152.623	14.8119	14.7431	392.176	75.7519	-263.72	69.8818	5.67740	137.105
296976	1402.81	1402.91	1407.99	30.3842	1182.96	1105.68	157.237	14.8119	14.8464	393.230	75.6166	-264.32	69.5074	41.7099	115.079
313180	1403.42	1404.00	1409.08	30.3842	1182.96	1110.59	157.874	14.8119	14.8464	394.178	75.4545	-264.26	69.5414	47.0154	115.208
330881	1404.49	1404.62	1409.39	30.3842	1182.96	1112.23	160.579	14.8119	14.8464	395.442	75.3868	-263.79	69.6095	29.5302	123.056
347202	1405.10	1405.09	1410.32	30.6933	1182.96	1109.98	158.510	14.8119	14.8464	396.284	75.3192	-263.79	69.3372	15.9139	122.415
363409	1405.71	1405.71	1410.94	30.6933	1182.34	1107.52	156.601	14.8119	14.8464	397.232	75.2111	-264.06	68.9284	35.5862	120.362
380117	1406.32	1406.49	1411.56	30.8993	1182.96	1108.75	162.329	15.0224	14.8464	398.496	75.0218	-263.26	69.0988	35.3019	128.930
396420	1407.09	1407.27	1412.19	30.8993	1182.55	1111.20	166.148	14.8119	15.5699	399.655	74.8593	-262.46	69.2350	18.8828	143.301
412627	1407.70	1407.73	1412.81	30.8993	1182.55	1109.98	162.329	14.8119	14.8464	400.603	74.7375	-261.94	69.2350	-15.036	149.644
438058	1408.31	1408.20	1413.58	30.8993	1182.96	1104.04	156.601	14.6013	14.8464	402.183	74.7375	-262.13	68.2468	18.6657	136.916
454635	1409.38	1409.13	1414.20	30.6933	1182.14	1105.68	158.988	14.7066	14.8464	403.025	74.7375	-262.46	68.2468	12.6844	133.121
470870	1409.53	1409.75	1414.83	30.5902	1182.96	1110.79	166.307	14.8119	14.8464	403.973	74.6157	-262.66	68.4171	12.3936	132.487
487178	1409.99	1410.38	1415.29	30.7963	1182.34	1112.43	167.421	14.8119	14.8464	404.816	74.4534	-262.66	68.5194	26.9887	123.760
503390	1410.60	1410.38	1415.91	30.8993	1182.96	1109.98	164.875	14.8119	14.8464	405.659	74.3180	-262.20	68.4513	42.8021	112.718
520094	1410.75	1410.84	1416.22	30.8993	1182.96	1108.75	164.398	14.8119	14.8464	406.501	74.2097	-262.13	68.5194	34.0209	117.885
536394	1411.21	1411.00	1416.53	32.1357	1182.34	1108.75	163.761	14.7066	14.7431	407.344	74.3451	-263.19	64.4529	48.8340	102.916
552612	1411.21	1411.00	1416.07	34.1963	1182.14	1108.75	162.966	13.9696	14.0196	407.976	74.6157	-263.53	33.7524	57.4504	98.7142
568917	1410.75	1410.69	1415.91	36.0508	1182.96	1109.98	168.058	13.3379	13.1927	408.924	74.9675	-263.53	-48.911	55.1318	102.916
585136	1409.53	1410.06	1414.83	39.9660	1182.96	1111.20	164.875	13.7591	13.6061	409.451	75.8329	-263.26	-163.10	55.3744	101.605
601360	1391.04	1391.71	1366.53	108.172	1182.96	1107.52	159.783	44.6059	44.5098	408.503	80.1328	-262.99	-238.79	61.4832	102.064
618140	1356.81	1358.75	1098.33	488.971	1182.96	1105.68	165.034	285.064	279.026	403.552	78.6256	-262.46	-262.53	39.6977	114.497
641903	1350.70	1351.75	941.939	938.387	1182.34	1104.25	169.967	557.949	553.542	400.182	76.7784	-261.67	-256.41	33.1657	120.875

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78 14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	PFV-1	PFVD	PGH2OT	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169		
.660650	1359.87	1360.30	984.336	1044.61	1182.34	1100.97	171.877	606.482
.676915	1366.59	1366.06	1027.82	1052.54	1182.55	1102.61	175.696	604.377
.693125	1369.65	1369.94	1050.80	1044.92	1182.34	1106.70	177.764	598.060
.709830	1371.48	1371.65	1058.72	1041.00	1182.34	1108.75	172.513	594.481
.722127	1371.48	1371.81	1059.35	1041.31	1182.34	1105.68	164.875	593.744
.738334	1371.64	1372.28	1058.72	1042.65	1182.55	1102.61	160.579	594.481
.755116	1371.64	1372.12	1058.41	1043.79	1182.34	1105.68	171.240	595.428
.771320	1372.09	1372.43	1058.41	1043.89	1182.34	1111.20	178.242	595.428
.787541	1372.09	1372.43	1058.72	1044.20	1182.55	1102.23	178.878	595.533
.804326	1372.09	1372.43	1058.72	1043.79	1182.34	1107.93	171.717	595.533
.820532	1372.09	1372.43	1058.41	1043.68	1182.34	1105.06	172.513	595.954
.844089	1372.09	1372.28	1058.26	1043.48	1182.14	1105.68	173.786	595.112
.862108	1371.64	1372.28	1057.95	1042.55	1182.14	1104.25	167.421	593.744
.878305	1371.64	1371.81	1057.48	1042.24	1182.14	1107.32	171.877	593.849
.895079	1371.48	1371.81	1056.86	1041.83	1182.14	1108.75	173.309	593.744
.911297	1371.48	1371.65	1056.86	1041.42	1182.14	1108.34	175.059	593.954
.927521	1370.87	1371.65	1056.39	1041.31	1182.34	1105.88	179.196	593.323
.944307	1370.41	1371.19	1056.24	1040.90	1182.34	1105.68	177.764	593.007
.960507	1370.26	1371.19	1055.77	1040.90	1182.14	1107.52	176.809	592.164
.976803	1370.26	1371.03	1055.15	1039.36	1182.14	1108.75	176.650	591.638
.993041	1370.26	1370.88	1055.15	1039.77	1182.14	1107.52	179.037	591.638
1.009262	1370.26	1370.56	1055.00	1039.56	1182.14	1105.88	175.218	592.059
1.025957	1369.65	1369.94	1054.53	1039.25	1182.14	1104.04	170.126	591.217
1.049478	1369.04	1369.63	1054.38	1038.53	1182.14	1104.04	168.853	590.375
1.068421	1369.04	1369.32	1053.75	1038.12	1182.14	1107.52	172.513	590.480
1.085198	1369.04	1369.17	1053.75	1038.33	1182.14	1107.52	169.967	592.059
1.101417	1368.43	1369.17	1053.91	1038.33	1182.14	1104.25	166.307	592.059
1.117598	1367.97	1368.54	1053.75	1038.12	1182.14	1102.61	167.421	591.638
1.135413	1367.81	1368.39	1053.44	1037.30	1182.14	1105.88	173.150	590.796
1.151631	1367.81	1368.08	1053.75	1037.19	1182.14	1108.75	175.059	589.532
1.167846	1367.36	1367.92	1052.67	1036.47	1182.14	1110.59	177.605	589.111
1.184164	1367.20	1367.77	1052.51	1036.27	1182.14	1105.88	172.513	589.111
1.200370	1366.90	1367.30	1052.51	1035.96	1182.14	1101.38	166.626	589.111
1.217067	1366.75	1367.30	1052.05	1035.65	1182.14	1105.06	174.423	589.638
1.233377	1366.75	1367.30	1052.51	1035.96	1181.52	1109.98	176.332	590.375
1.257261	1367.20	1367.45	1051.89	1035.54	1182.14	1105.68	168.694	589.111
1.276250	1367.20	1367.45	1051.89	1035.24	1182.14	1104.04	171.240	589.427
1.292281	1367.20	1367.77	1051.89	1035.24	1181.52	1105.68	173.786	589.111
1.309506	1367.20	1367.77	1051.43	1035.03	1181.52	1104.66	172.672	589.743
1.326296	1367.20	1367.77	1051.58	1035.03	1182.14	1105.88	177.605	589.848
1.342506	1367.36	1367.77	1051.43	1035.03	1182.14	1107.52	180.310	589.111
1.358792	1367.36	1367.92	1051.43	1034.82	1182.14	1108.75	179.674	589.111
1.375035	1367.81	1368.08	1051.43	1034.82	1181.31	1107.93	181.424	589.848
1.391241	1367.81	1368.08	1051.27	1035.03	1182.14	1107.52	177.605	589.954
1.407931	1367.81	1368.08	1051.27	1034.72	1181.31	1107.52	174.423	589.111
1.424232	1367.81	1368.08	1051.27	1034.41	1181.11	1105.88	169.967	589.111
1.441431	1367.81	1368.08	1050.80	1034.41	1181.52	1104.04	162.966	588.374
1.465012	1367.20	1367.77	1050.18	1033.59	1181.31	1105.88	166.785	587.532
1.483107	1367.20	1367.45	1050.03	1033.59	1181.31	1105.06	161.056	588.374

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78 14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	PFV-1	PFV-2	PFVD	PFJ	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93
1.499694	1367.20	1367.77	1050.18	1033.59	1181.31	1101.79	156.760	588.690	588.270	37.0016
1.516007	1367.20	1367.77	1050.18	1033.48	1180.49	1103.02	161.693	587.953	587.753	37.0016
1.532222	1367.20	1367.77	1050.03	1033.48	1181.31	1105.68	164.398	587.532	587.236	37.2122
1.548918	1367.81	1368.08	1050.03	1033.48	1181.31	1105.88	162.329	588.269	587.753	37.0016
1.565218	1367.81	1368.08	1050.03	1033.48	1182.14	1107.52	169.331	588.690	588.167	37.0016
1.581432	1367.81	1368.08	1050.03	1033.48	1180.90	1108.75	174.423	587.953	587.443	37.0016
1.598216	1367.81	1368.08	1050.03	1033.17	1180.70	1107.52	169.967	587.637	587.030	37.0016
1.614437	1367.81	1368.08	1049.56	1032.97	1180.49	1102.61	166.785	587.743	587.340	37.0016
1.630661	1367.81	1368.08	1050.03	1032.97	1180.70	1102.61	164.875	587.848	587.340	37.0016
1.647439	1367.81	1368.08	1049.56	1032.76	1181.31	1105.06	170.285	587.953	587.340	37.0016
1.670881	1367.81	1368.08	1049.41	1032.76	1181.31	1107.32	167.421	587.427	586.926	37.0016
1.690269	1367.81	1368.08	1049.41	1032.66	1180.70	1107.52	169.012	587.427	587.030	37.0016
1.707100	1367.81	1368.54	1049.41	1032.35	1180.70	1104.66	163.761	587.111	586.513	35.7376
1.720304	1370.26	1370.56	1049.10	1031.94	1180.70	1101.38	166.148	586.269	585.789	26.3632
1.736998	1374.08	1374.45	1050.03	1033.48	1181.11	1102.61	162.966	585.848	585.272	17.6207
1.753318	1378.82	1379.12	1051.58	1034.62	1180.70	1104.25	163.761	586.269	585.789	14.1448
1.769525	1381.42	1381.61	1053.75	1036.78	1180.70	1106.29	169.331	586.585	586.203	13.5128
1.786215	1381.87	1382.23	1054.53	1037.71	1180.49	1105.88	171.240	586.585	586.099	13.9342
1.802540	1381.26	1381.61	1055.00	1038.12	1180.70	1107.32	177.764	587.006	586.203	14.5661
1.818746	1380.04	1380.36	1055.00	1037.91	1180.70	1107.32	177.605	586.585	586.099	14.5661
1.835044	1378.82	1379.27	1054.38	1037.30	1180.70	1105.88	175.059	586.585	585.789	14.5661
1.851264	1377.75	1378.03	1054.07	1036.88	1180.70	1106.50	171.240	587.532	586.926	14.5661
1.877856	1376.37	1376.79	1053.75	1037.09	1180.49	1104.25	163.602	588.269	586.616	14.5661
1.894711	1376.37	1376.63	1053.75	1036.78	1180.49	1101.79	161.056	588.796	587.960	14.5661
1.911931	1375.76	1376.16	1053.60	1036.27	1180.49	1102.20	161.693	588.796	588.167	14.5661
1.928157	1375.15	1375.54	1053.75	1036.06	1180.70	1104.66	168.058	589.111	588.167	14.9875
1.944933	1374.54	1374.92	1053.13	1035.96	1180.49	1108.13	176.969	588.374	587.753	14.5661
1.962142	1373.93	1374.30	1052.67	1035.24	1180.49	1108.34	175.059	587.427	586.616	14.5661
1.978837	1373.47	1374.14	1051.89	1034.62	1180.49	1105.68	177.128	587.006	586.203	14.5661
1.995133	1373.32	1374.14	1051.43	1034.31	1180.49	1105.06	184.129	587.532	586.926	14.5661
2.012348	1372.70	1373.52	1051.27	1033.79	1180.49	1105.88	183.970	587.216	586.513	14.5661
2.029038	1372.70	1372.90	1050.65	1033.59	1180.49	1104.66	178.242	586.269	585.686	14.5661
2.045341	1372.09	1372.74	1050.18	1033.17	1180.49	1104.04	180.151	586.058	585.272	14.5661
2.061556	1371.64	1372.28	1050.03	1032.97	1180.49	1105.88	182.060	587.006	586.099	14.5661
2.085557	1371.48	1371.81	1050.03	1032.97	1180.70	1108.75	182.856	587.427	586.513	14.5661
2.103633	1371.48	1371.65	1050.03	1032.97	1180.49	1108.34	175.059	587.637	586.926	14.5661
2.120731	1371.48	1371.65	1050.03	1033.07	1180.49	1104.04	164.875	587.743	586.926	14.5661
2.137511	1370.87	1371.65	1050.03	1033.17	1180.49	1099.33	159.783	587.006	586.099	14.5661
2.153729	1370.87	1371.65	1050.18	1033.17	1180.70	1100.77	159.147	586.690	586.099	14.5661
2.169946	1370.87	1371.65	1050.49	1033.17	1180.49	1104.25	159.942	587.006	586.099	14.5661
2.186262	1371.02	1371.65	1050.34	1032.97	1181.11	1108.75	171.240	587.111	586.306	14.5661
2.202472	1370.87	1371.81	1050.03	1032.97	1180.49	1109.77	179.037	587.322	586.513	14.5661
2.219147	1370.87	1371.81	1050.18	1033.07	1180.49	1107.52	179.674	587.216	586.513	14.5661
2.236464	1371.48	1371.65	1050.18	1033.07	1180.49	1105.06	179.674	587.743	586.926	14.5661
2.252699	1371.02	1372.12	1050.65	1033.17	1180.49	1102.61	170.604	587.532	586.926	14.5661
2.268990	1371.48	1371.81	1050.80	1033.38	1180.49	1100.77	168.058	587.322	586.513	14.5661
2.293206	1371.48	1371.65	1050.65	1033.48	1180.49	1107.32	175.696	587.532	586.926	14.5661
2.310967	1371.48	1371.81	1050.65	1033.17	1180.49	1107.93	167.421	586.690	585.789	14.5661
2.327245	1371.48	1371.81	1050.18	1032.97	1180.49	1102.20	161.215	586.164	585.272	14.5661

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78 14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	PFV-1	PFVD	PGH2OT	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169		
2.343447	1371.48	1371.81	1050.03	1032.66	1180.49	1099.95	159.783	586.690
2.360154	1371.48	1371.65	1050.03	1032.66	1179.87	1102.40	160.738	587.006
2.376460	1370.87	1371.81	1050.03	1032.35	1180.49	1106.70	170.285	587.006
2.393675	1370.87	1371.81	1050.03	1032.66	1180.49	1108.75	177.605	587.216
2.409975	1371.48	1371.65	1050.03	1032.35	1179.67	1108.75	176.491	586.585
2.426200	1371.48	1371.65	1049.41	1031.94	1179.67	1104.66	179.037	585.427
2.442402	1370.87	1371.81	1048.94	1031.73	1180.49	1102.61	173.150	586.058
2.459191	1370.87	1371.65	1049.41	1031.73	1180.49	1102.61	168.853	587.006
2.475394	1370.87	1371.65	1050.03	1032.35	1180.49	1104.25	171.877	586.690
2.498427	1370.87	1371.65	1050.03	1032.66	1179.05	1106.29	174.423	586.585
2.516437	1371.48	1371.81	1050.03	1032.76	1179.67	1105.06	172.513	587.006
2.532662	1371.48	1371.81	1050.03	1032.76	1180.49	1102.61	169.331	586.585
2.549445	1371.48	1371.81	1050.03	1032.76	1180.49	1102.40	172.513	587.006
2.565671	1371.48	1371.81	1050.03	1032.76	1180.49	1105.06	175.696	587.427
2.581889	1371.64	1371.81	1050.65	1033.17	1179.67	1106.70	175.855	587.532
2.598196	1371.64	1371.81	1050.65	1033.38	1179.67	1104.25	168.058	587.006
2.614415	1371.48	1372.12	1050.34	1033.17	1179.67	1102.61	164.875	587.006
2.631112	1371.48	1372.12	1050.34	1032.97	1180.49	1104.25	168.694	585.953
2.648413	1371.48	1371.81	1050.03	1032.76	1179.67	1105.68	164.398	585.005
2.664558	1371.48	1372.12	1049.56	1032.35	1179.67	1104.25	164.875	585.427
2.680869	1371.48	1371.81	1049.56	1032.35	1179.67	1102.20	160.102	586.164
2.704280	1371.48	1371.81	1050.03	1032.97	1180.49	1103.43	172.036	587.427
2.717178	1371.48	1371.81	1050.34	1032.97	1179.87	1107.93	177.605	587.532
2.733322	1371.48	1371.81	1053.75	1032.35	1179.87	1108.34	175.696	587.953
2.749542	1371.48	1371.81	1079.84	1021.12	1179.67	1105.68	172.513	551.316
2.766231	1399.60	1398.56	1252.54	839.787	1179.67	1102.61	168.853	353.391
2.782542	1436.27	1433.86	1405.35	504.219	1179.67	1103.02	165.671	202.209
2.798744	1450.94	1449.56	1465.14	252.311	1179.67	1104.66	158.988	145.253
2.815057	1452.32	1451.90	1471.20	139.596	1179.67	1105.06	161.852	125.566
2.831278	1449.87	1450.03	1462.50	106.214	1179.67	1107.52	166.148	100.615
2.847503	1447.89	1448.32	1455.36	91.0688	1179.67	1110.59	168.694	67.2410
2.864282	1447.28	1447.23	1452.72	76.5416	1179.67	1110.59	166.307	42.6056
2.881508	1446.67	1447.08	1452.56	62.4265	1179.67	1108.34	168.853	29.1299
2.905013	1446.67	1446.92	1452.72	48.0023	1179.67	1104.04	161.693	20.2864
2.923137	1446.67	1446.92	1452.56	40.9962	1179.67	1102.20	160.420	16.7069
2.939235	1446.67	1446.92	1452.56	36.6690	1180.49	1104.66	166.307	15.0224
2.957008	1446.05	1446.45	1452.56	33.0629	1179.67	1107.52	171.240	14.2855
2.973222	1446.05	1446.45	1452.56	30.7963	1179.67	1110.59	173.945	13.8643
2.989442	1446.05	1446.45	1452.10	29.1478	1179.67	1108.75	174.582	13.8643
3.006218	1446.05	1446.30	1451.94	27.9114	1179.67	1105.68	168.694	13.6538
3.022435	1446.05	1446.30	1451.94	27.1902	1179.67	1101.79	167.421	13.8643
3.038785	1445.44	1445.83	1451.94	26.7781	1179.67	1105.68	168.853	13.8643
3.054972	1445.44	1445.83	1451.48	26.1599	1180.49	1108.34	171.399	13.8643
3.071183	1445.44	1445.68	1451.48	25.8508	1179.26	1108.34	171.877	13.8643
3.087870	1445.44	1445.68	1451.48	25.8508	1179.46	1107.93	172.513	13.9696
3.111457	1445.44	1445.52	1451.32	25.9539	1179.67	1104.25	159.147	13.7591
3.131295	1445.44	1445.52	1451.32	25.8508	1179.67	1102.61	154.691	13.8643
3.147737	1445.44	1445.21	1451.01	25.5418	1179.67	1104.04	157.874	13.8643
3.163945	1444.83	1445.36	1451.17	25.5418	1180.49	1107.32	161.056	13.8643



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78 14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	PFV-1	PFV-2	PFVD	PFJ	PGH20T	PH20-OUT	PC-1	PC-2	POJI	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160
3.181162	1444.83	1445.21	1451.01	25.5418	1179.67	1107.52	161.215	13.8643	14.0196	14.5661	50.7888	-256.87
3.197945	1444.98	1445.21	1451.32	26.1599	1179.67	1107.52	164.239	13.8643	14.0196	14.5661	51.3044	-256.41
3.215157	1444.98	1445.21	1450.86	25.9539	1179.67	1107.32	165.512	13.9696	14.0196	14.5661	51.8615	-255.89
3.231851	1444.83	1444.90	1450.86	25.9539	1179.87	1105.68	159.942	13.8643	14.0196	14.5661	52.3485	-254.58
3.248159	1444.83	1445.21	1450.70	26.1599	1179.67	1104.04	159.306	13.7591	14.0196	14.5661	52.7518	-253.22
3.264367	1444.83	1444.90	1450.70	25.9539	1179.87	1104.04	154.214	13.8643	14.0196	14.5661	53.0299	-251.73
3.281067	1444.83	1444.90	1450.70	26.1599	1179.67	1105.68	158.510	13.8643	14.0196	14.5661	53.4052	-250.95
3.297372	1444.83	1444.90	1450.70	26.1599	1179.67	1107.52	164.875	13.9696	13.9162	14.5661	53.6830	-250.44
3.323284	1444.83	1444.90	1450.70	26.3660	1179.67	1107.52	164.239	13.8643	14.0196	14.5661	54.1689	-250.18
3.341605	1444.83	1444.90	1450.70	26.3660	1179.67	1105.88	161.375	13.9696	14.0196	14.5661	54.4465	-249.66
3.357927	1444.83	1444.90	1450.70	26.3660	1180.49	1105.88	159.783	13.9696	14.0196	14.5661	54.6962	-248.89
3.374137	1444.83	1444.90	1450.39	26.1599	1179.67	1105.88	161.056	13.8643	14.0196	14.5661	54.9042	-248.57
3.390826	1444.22	1444.90	1450.23	26.3660	1180.49	1107.32	166.785	13.8643	14.1229	14.5661	55.2369	-248.64
3.407136	1444.83	1444.90	1450.70	26.7781	1180.49	1105.88	160.420	13.8643	14.0196	14.5661	55.4033	-248.38
3.423355	1444.83	1444.90	1450.23	26.6751	1180.49	1104.04	161.693	13.9696	14.0196	14.5661	55.6804	-247.87
3.440126	1444.83	1444.59	1450.23	26.6751	1180.49	1104.25	166.307	13.8643	14.0196	14.5661	55.9020	-247.36
3.456346	1444.83	1444.59	1450.23	26.6751	1179.67	1108.34	163.761	13.8643	14.1229	14.5661	56.0682	-247.04
3.472572	1444.83	1444.59	1449.61	26.1599	1179.67	1108.13	160.420	13.9696	14.0196	14.5661	56.1928	-246.53
3.489367	1444.83	1444.59	1450.08	26.7781	1179.67	1105.68	159.147	13.8643	14.2263	14.5661	56.3451	-245.83
3.505558	1444.83	1444.59	1450.23	26.6751	1179.67	1105.06	165.034	13.9696	14.2263	14.5661	56.4974	-245.58
3.531688	1444.83	1444.43	1450.08	26.6751	1179.67	1107.32	166.148	13.9696	14.0196	14.5661	56.6080	-244.56
3.548360	1444.83	1444.59	1450.23	26.7781	1179.67	1105.88	164.875	13.9696	14.0196	14.5661	56.7880	-244.56
3.564550	1444.83	1444.59	1450.23	26.6751	1180.49	1105.68	162.329	14.1802	14.0196	14.5661	56.9539	-244.06
3.581859	1444.22	1444.90	1450.08	26.6751	1180.49	1105.88	162.488	13.9696	14.0196	14.5661	57.1060	-244.06
3.598067	1444.22	1444.90	1450.23	26.7781	1179.67	1105.88	153.418	13.9696	14.0196	14.5661	57.2305	-244.06
3.614285	1444.83	1444.59	1450.08	26.7781	1179.87	1105.06	149.599	13.9696	14.0196	14.5661	57.3411	-244.31
3.631059	1444.22	1444.90	1450.08	27.0872	1179.87	1104.25	145.940	13.8643	14.0196	14.5661	57.3550	-244.00
3.647264	1444.22	1444.90	1450.23	27.0872	1179.87	1104.04	147.054	13.9696	14.0196	14.5661	57.4655	-243.43
3.663966	1444.22	1444.90	1450.08	26.7781	1179.67	1104.04	150.395	13.9696	14.0196	14.5661	57.6313	-242.04
3.680265	1444.22	1444.90	1450.08	26.7781	1179.67	1104.66	157.874	13.9696	14.0196	14.5661	57.7419	-242.55
3.696473	1444.22	1444.90	1450.08	26.7781	1179.67	1107.52	164.239	13.9696	14.1229	14.5661	57.8386	-243.05
3.713180	1444.22	1444.90	1450.08	27.0872	1180.49	1108.34	160.420	13.9696	14.0196	14.5661	57.9354	-243.05
3.729705	1444.22	1444.59	1450.08	27.0872	1179.67	1106.50	152.941	14.1802	14.0196	14.5661	58.0597	-242.99
3.747720	1444.22	1444.90	1450.08	27.0872	1179.67	1103.02	147.690	13.9696	14.1229	14.5661	58.1840	-242.36
3.764491	1444.22	1444.90	1450.08	27.0872	1179.67	1102.20	149.759	13.9696	14.0196	14.5661	58.2807	-241.73
3.780707	1443.91	1444.43	1450.08	26.7781	1179.67	1104.86	157.396	14.0749	14.1229	14.5661	58.3773	-241.04
3.796926	1444.22	1444.90	1450.08	26.7781	1179.87	1108.34	166.148	13.9696	14.0196	14.5661	58.4463	-241.42
3.813237	1444.22	1444.59	1450.08	27.0872	1180.49	1108.34	165.034	14.2855	14.0196	14.5661	58.5015	-241.35
3.829447	1444.22	1444.59	1450.08	27.0872	1179.67	1105.88	161.693	13.9696	14.0196	14.5661	58.5568	-240.98
3.847147	1443.76	1444.59	1450.08	27.0872	1179.67	1105.06	163.602	13.9696	14.0196	14.5661	58.6120	-240.54
3.863446	1443.91	1444.43	1450.08	27.0872	1179.67	1107.32	164.398	13.9696	14.1229	14.5661	58.6672	-240.48
3.879654	1444.22	1444.74	1450.08	27.0872	1179.67	1106.29	158.510	13.9696	14.0196	14.5661	58.7224	-240.79
3.895959	1444.22	1444.59	1450.08	27.0872	1180.49	1105.06	166.148	13.9696	14.1229	14.5661	58.7914	-241.04
3.912187	1444.22	1444.74	1450.08	27.1902	1179.67	1106.29	167.421	13.9696	14.0196	14.5661	58.8741	-240.79
3.935702	1444.22	1444.90	1450.08	27.1902	1180.49	1107.52	168.058	13.9696	14.1229	14.5661	58.9984	-240.67
3.954206	1444.22	1444.74	1450.08	27.0872	1179.67	1106.50	161.693	13.9696	14.2263	14.5661	58.7914	-240.29
3.970410	1444.22	1444.90	1450.08	27.0872	1179.67	1107.52	166.148	13.9696	14.2263	14.5661	58.8741	-240.29
3.987105	1444.22	1444.59	1450.08	27.0872	1180.49	1107.52	165.671	13.9696	14.2263	14.5661	59.1087	-241.04
4.003410	1444.22	1444.59	1450.08	27.1902	1179.87	1105.06	166.466	13.8643	14.2263	14.5661	59.2881	-241.98

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101 CALIBRATION PERFORMED 08-31-78 14:04:04 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	PFV-1	PFVD	PGH2OT	PH2O-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PFV-2	PFJ	PH2O-J	PC-1	POJI	TBL	TAO	
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
4.019613	1444.22	1444.59	1450.08	27.1902	1179.67	1103.22	161.056	13.9696
4.036927	1444.22	1444.74	1450.08	27.1902	1179.67	1104.66	164.239	13.9696
4.053142	1444.22	1444.59	1450.08	27.0872	1179.67	1107.32	166.466	13.9696
4.069369	1444.22	1444.74	1450.08	27.0872	1179.67	1107.32	164.239	13.9696
4.086153	1444.22	1444.59	1450.08	27.0872	1179.87	1105.88	161.056	13.9696
4.102362	1444.22	1444.90	1450.08	27.0872	1179.67	1105.68	162.648	13.9696
4.119052	1444.22	1444.74	1449.46	27.0872	1180.49	1107.32	168.217	13.9696
4.145094	1443.76	1444.59	1450.08	27.1902	1180.49	1107.93	165.512	13.9696
4.164037	1444.22	1444.90	1450.08	27.1902	1180.49	1105.88	161.056	13.9696
4.180699	1444.83	1444.59	1450.08	27.1902	1180.49	1102.61	154.055	13.9696
4.196997	1444.83	1444.43	1450.08	27.1902	1180.49	1103.02	155.964	13.9696
4.213218	1444.22	1444.90	1450.08	27.1902	1179.67	1106.50	157.237	14.1802
4.229911	1444.22	1444.74	1450.08	27.1902	1180.49	1108.34	162.488	14.2855
4.246216	1444.22	1444.90	1450.08	27.0872	1180.49	1110.79	169.331	13.9696
4.262432	1444.22	1444.90	1450.08	27.1902	1179.67	1108.13	171.399	14.2855
4.279220	1444.22	1444.90	1450.08	27.1902	1179.67	1104.04	164.398	13.9696
4.295434	1444.83	1444.90	1450.08	27.0872	1180.49	1104.04	161.693	13.9696
4.311659	1444.83	1444.59	1450.08	27.1902	1179.67	1105.68	155.964	13.9696
4.329433	1444.83	1444.59	1450.08	27.3963	1180.49	1105.68	153.418	13.9696
4.354840	1444.83	1444.59	1450.08	27.1902	1179.67	1104.25	153.578	14.0749
4.374195	1444.22	1444.90	1450.08	27.3963	1179.87	1107.32	157.396	14.2855
4.390333	1444.83	1444.74	1450.23	27.3963	1180.49	1107.32	154.691	13.8643
4.406535	1444.83	1444.59	1450.08	27.4993	1179.67	1105.88	150.872	14.1802
4.423230	1444.22	1444.90	1450.08	27.3963	1179.67	1105.88	150.554	13.9696
4.439543	1444.83	1444.59	1450.08	27.4993	1180.49	1105.88	148.963	13.8643
4.455763	1444.83	1444.59	1450.23	27.4993	1180.49	1104.66	148.327	13.9696
4.472069	1444.22	1444.90	1450.23	27.4993	1180.49	1104.25	148.327	13.9696
4.488277	1444.37	1444.90	1450.23	27.4993	1180.49	1104.66	147.213	13.9696
4.504493	1444.83	1444.59	1450.08	27.2933	1180.49	1105.68	160.261	14.2855
4.521284	1444.22	1444.90	1450.23	27.4993	1179.87	1108.75	169.331	13.9696
4.537495	1444.22	1444.90	1450.08	26.7781	1179.67	1108.75	172.672	14.2855
4.560978	1444.83	1444.74	1450.08	27.3963	1179.67	1106.70	172.513	14.2855
4.579093	1444.83	1444.74	1450.39	27.1902	1180.49	1104.04	165.034	14.2855
4.595199	1444.83	1444.74	1450.39	27.1902	1180.49	1103.43	161.852	13.9696
4.611990	1444.83	1444.90	1450.23	27.4993	1179.67	1104.25	159.942	14.2855
4.628158	1444.83	1444.90	1450.70	27.6024	1180.49	1106.29	163.602	14.0749
4.644408	1444.83	1444.90	1450.39	27.3963	1179.87	1107.52	167.739	14.0749
4.661190	1444.83	1444.74	1450.39	27.3963	1180.49	1107.32	167.421	14.2855
4.677393	1444.22	1444.90	1450.70	27.4993	1179.87	1106.70	167.580	14.2855
4.694092	1444.83	1444.74	1450.23	27.4993	1180.49	1107.52	170.126	14.2855
4.710407	1444.83	1444.90	1450.23	27.4993	1180.49	1107.32	173.150	14.2855
4.719620	1444.83	1444.90	1450.39	27.3963	1179.67	1105.68	169.967	14.0749
4.736307	1444.83	1444.90	1450.39	27.4993	1179.67	1107.52	169.967	13.9696
4.759872	1444.83	1444.90	1450.39	27.3963	1179.87	1105.88	157.237	14.0749
4.778665	1444.83	1444.90	1450.23	27.6024	1179.67	1100.97	151.668	13.9696
4.795154	1444.83	1444.90	1450.23	27.6024	1179.67	1100.97	155.328	14.0749
4.811370	1444.83	1444.90	1450.23	27.6024	1179.67	1105.88	162.488	14.2855
4.827583	1444.83	1444.90	1450.70	27.6024	1180.49	1109.98	166.466	13.8643
4.844368	1444.83	1444.90	1450.23	27.6024	1179.67	1110.59	168.058	13.9696



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101

CALIBRATION PERFORMED 08-31-78 14:04:04

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	PFV-1	PFV-2	PFVD	PFJ	PGH20T	PH20-J	PH20-OUT	PC-1	PC-2	POJI	TFJ	TBL	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168
4.860572	1444.83	1444.90	1450.70	27.4993	1179.67	1106.70	162.329	14.2855	14.1229	14.1448	61.2715	-263.26	31.9518	-1.9970
4.876808	1444.83	1444.90	1450.39	27.3963	1179.67	1101.38	159.783	14.0749	14.1229	14.2502	61.3128	-263.72	31.8058	31.2417
4.893108	1444.83	1444.90	1450.70	27.6024	1179.67	1102.20	162.488	14.2855	14.2263	14.2502	61.3265	-263.79	31.6962	42.9077
4.910321	1444.83	1444.90	1450.70	27.6024	1180.49	1107.32	166.307	13.9696	14.1229	14.5661	61.3265	-263.79	31.9518	33.7360
4.927017	1444.83	1444.90	1450.70	27.6024	1179.67	1110.59	171.399	14.2855	14.0196	14.5661	61.3816	-263.26	32.1119	32.3097
4.944320	1444.83	1444.90	1450.70	27.8084	1180.49	1108.34	170.604	13.9696	14.0196	14.5661	61.4229	-262.73	32.1832	29.7848
4.970074	1444.83	1444.90	1450.70	27.8084	1179.67	1104.86	164.875	13.9696	14.2263	14.1448	61.4229	-262.73	32.0614	33.7360
4.986546	1445.44	1444.90	1450.70	27.8084	1179.67	1107.32	166.148	13.9696	14.2263	14.2502	61.4916	-262.73	32.1832	37.4320
5.003760	1446.67	1445.21	1450.70	27.6024	1179.67	1106.70	167.580	14.2855	14.2263	14.1448	61.4778	-261.94	32.7186	-2.5915
5.020990	1444.83	1444.90	1450.70	27.4993	1179.67	1105.68	164.875	14.0749	14.2263	14.5661	61.5191	-261.14	32.9683	-37.132
5.037307	1444.83	1444.90	1450.70	27.6024	1179.67	1104.25	163.921	13.8643	14.1229	14.1448	61.6016	-262.20	33.0395	1.88927
5.053510	1444.83	1445.21	1450.70	27.6024	1180.49	1105.68	159.306	15.0224	14.0196	14.5661	61.5879	-262.20	33.4318	33.4509
5.070201	1446.05	1445.68	1450.70	27.6024	1180.49	1105.68	161.215	13.9696	14.2263	14.1448	61.6566	-262.73	33.6099	9.66302
5.086510	1444.83	1445.21	1450.70	27.6024	1179.67	1103.43	158.510	13.9696	14.2263	14.1448	61.6429	-263.53	33.6475	6.59352
5.102724	1444.98	1445.21	1450.86	27.6024	1179.67	1104.25	164.239	13.9696	14.1229	14.5661	61.6566	-264.85	33.5743	17.3627
5.119027	1444.83	1445.21	1450.70	27.8084	1180.49	1108.13	167.421	13.9696	14.1229	14.5661	61.6978	-266.19	33.7168	8.89685
5.135238	1444.83	1445.21	1450.70	27.8084	1179.87	1108.75	161.056	14.0749	14.2263	14.5661	61.7667	-265.92	34.0374	17.0368
5.151475	1444.83	1445.21	1450.70	27.8084	1179.87	1105.68	152.145	13.8643	14.2263	14.5661	61.7116	-264.32	34.1799	49.3578
5.175946	1444.98	1445.21	1450.86	27.9114	1179.67	1101.38	145.144	14.0749	14.2263	14.5661	61.7667	-264.26	34.1799	58.8314
5.193965	1445.44	1445.36	1450.86	27.9114	1180.49	1105.88	157.237	14.0749	14.2263	14.5661	61.7667	-263.72	34.4647	51.5194
5.210726	1445.44	1445.36	1451.01	27.6024	1180.49	1112.43	168.694	13.9696	14.2263	14.5661	61.8629	-263.72	34.7138	52.3545
5.227036	1445.44	1445.52	1450.86	27.9114	1179.67	1110.79	163.602	13.9696	14.2263	14.5661	61.8766	-264.85	34.7138	55.5129
5.242340	1442.39	1446.92	1450.86	27.9114	1179.67	1103.22	152.145	14.2855	14.2263	14.5661	61.8629	-264.32	34.7138	29.8212
5.260010	1444.83	1445.21	1451.01	27.4993	1179.67	1100.77	156.283	13.9696	14.2263	14.1448	61.9178	-263.79	34.9984	-3.6334
5.276238	1444.83	1445.36	1450.86	27.6024	1179.67	1104.04	153.578	14.0749	14.2263	14.1448	61.9178	-263.79	35.2830	-51.137
5.292459	1444.83	1445.36	1450.86	27.6024	1179.05	1105.88	154.691	14.2855	14.2263	14.1448	61.8629	-263.72	35.4250	-35.003
5.309238	1444.98	1445.68	1450.86	27.9114	1179.67	1107.52	158.510	13.9696	14.2263	14.1448	61.9178	-263.79	35.3184	14.7537
5.325442	1445.44	1445.52	1450.86	27.9114	1179.67	1108.75	162.488	14.2855	14.2263	14.1448	61.9316	-263.59	35.2830	31.7160
5.341800	1445.44	1445.52	1451.01	27.9114	1179.67	1107.52	164.239	13.9696	14.2263	14.5661	61.9316	-263.66	35.4607	20.3659
5.357987	1445.14	1445.21	1450.86	27.9114	1179.67	1105.68	161.056	14.0749	14.2263	14.2502	61.9866	-265.59	35.8516	27.7503
5.381598	1445.44	1445.36	1451.01	27.9114	1179.67	1104.25	166.466	13.9696	14.0196	14.5661	62.0828	-270.20	35.8516	33.1657
5.400872	1445.44	1445.68	1450.86	28.0145	1179.67	1107.32	168.058	13.9696	14.2263	14.1448	62.0828	-269.66	35.8516	32.6307
5.417173	1445.44	1445.68	1450.86	27.9114	1179.67	1108.13	171.399	14.2855	14.2263	14.2502	62.1515	-267.99	36.3133	31.5335
5.433391	1445.44	1445.68	1450.86	27.9114	1179.67	1107.52	172.513	14.2855	14.2263	14.5661	62.1927	-267.45	36.4198	44.4901
5.450171	1445.44	1445.68	1451.01	27.6024	1179.67	1108.34	170.604	13.9696	14.2263	14.1448	62.1927	-266.45	36.1713	24.4533
5.466378	1445.44	1445.68	1451.17	27.9114	1179.67	1108.13	164.875	14.2855	14.0196	14.5661	62.1515	-265.39	36.3133	26.5899
5.482605	1445.44	1445.68	1451.01	27.9114	1179.67	1104.04	155.328	14.0749	14.2263	14.5661	62.1515	-265.12	36.4198	41.4984
5.499380	1445.44	1445.68	1451.17	27.9114	1179.67	1100.77	158.510	13.9696	14.0196	14.5661	62.0966	-264.85	36.5618	45.7538
5.515596	1446.05	1445.83	1451.32	28.1175	1179.67	1104.04	162.329	14.2855	14.2263	14.5661	62.1378	-265.32	36.5618	47.9952
5.531829	1446.05	1445.83	1451.32	28.1175	1179.67	1108.75	166.785	13.9696	14.0196	14.5661	62.1515	-264.32	36.7039	39.4148
5.549134	1445.44	1445.68	1451.32	28.0145	1179.67	1108.75	159.783	14.0749	14.0196	14.5661	62.2065	-262.99	37.0231	31.2782
5.565345	1445.44	1445.83	1451.17	27.9114	1179.67	1104.25	153.578	13.9696	14.0196	14.5661	62.3164	-262.20	37.1295	33.2014
5.588403	1445.44	1445.68	1451.32	28.0145	1179.67	1105.06	157.237	14.1802	14.1229	14.2502	62.3027	-260.81	37.1651	17.7971
5.607103	1445.44	1445.68	1451.32	28.0145	1179.67	1106.70	155.964	13.9696	14.2263	14.1448	62.3027	-260.35	37.3778	1.26181
5.623161	1445.44	1445.83	1451.01	27.4993	1179.67	1105.06	149.599	13.9696	14.0196	14.2502	62.3027	-260.35	37.5906	-31.120
5.639937	1445.44	1445.83	1451.32	27.9114	1179.26	1104.25	150.872	13.9696	14.2263	14.1448	62.3027	-260.09	37.7324	-13.707
5.656160	1444.98	1445.68	1451.32	27.9114	1179.67	1105.88	150.554	13.9696	14.1229	14.1448	62.3164	-261.08	37.8032	17.3627
5.672860	1446.05	1446.30	1451.32	28.0145	1179.67	1107.52	150.395	13.9696	14.2263	14.1448	62.3027	-261.14	37.6968	-1.9970
5.689167	1446.05	1446.30	1451.32	28.1175	1179.67	1107.32	151.032	14.1802	14.1229	14.2502	62.3164	-261.41	37.6968	-6.1345

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 101 CALIBRATION PERFORMED 08-31-78 14:04:04 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 240/ 0 TO 255/47 FILE STARTING T.O.D. 13:50:30.102131 T.C.V. ON T.O.D. 13:50:30.285507

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
5.706383	1446.05	1446.30	1451.48	27.8084	1179.67	1104.04	145.781	13.9696
46805.7241	1446.05	1446.30	1451.32	25.7478	1179.67	1102.61	147.054	14.0749
46805.7404	1446.05	1446.30	1451.32	22.4509	1179.67	1104.25	145.940	14.0749
46805.7566	1446.05	1447.08	1451.32	19.4630	1179.67	1107.32	154.055	14.1802
46805.7729	1446.05	1446.30	1451.32	17.2994	1179.67	1108.75	158.510	14.0749
46805.7973	1446.05	1446.30	1451.48	15.5479	1179.67	1108.75	159.783	14.2855
46805.8164	1446.05	1446.30	1451.48	15.1357	1179.67	1104.25	151.032	14.2855
46805.8331	1446.05	1446.45	1451.48	14.8266	1180.49	1100.77	148.963	13.9696
46805.8503	1446.05	1446.30	1451.48	14.6206	1179.67	1101.79	155.328	14.2855
46805.8670	1446.05	1446.30	1451.48	14.6206	1179.67	1108.34	161.056	14.2855
46805.8833	1446.05	1446.30	1451.63	14.4145	1179.67	1108.34	163.921	14.2855
46805.9005	1446.05	1446.30	1451.63	14.3115	1179.87	1105.88	165.512	14.2855
46805.9172	1446.05	1446.45	1451.48	14.4145	1179.67	1105.68	163.602	14.2855
46805.9345	1446.05	1446.30	1451.48	14.4145	1179.67	1105.06	161.056	14.2855
46805.9507	1446.05	1446.30	1451.63	14.3115	1179.67	1105.68	164.875	14.2855
46805.9670	1446.05	1446.45	1451.48	14.5176	1179.67	1107.32	169.967	14.2855
46805.9832	1446.05	1446.45	1451.94	14.6206	1179.67	1107.52	168.853	14.2855
46806.0067	1446.05	1446.30	1451.94	14.4145	1179.67	1105.88	168.058	14.2855
46806.0248	1446.05	1446.45	1451.79	14.4145	1179.67	1105.68	170.126	14.2855
46806.0410	1446.05	1446.45	1451.48	14.6206	1179.67	1105.88	168.694	14.2855
46806.0573	1446.05	1446.45	1451.94	14.4145	1179.67	1106.50	163.602	14.2855
46806.0735	1446.05	1446.45	1451.79	14.2085	1179.67	1105.68	158.510	14.0749
46806.0897	1446.05	1446.45	1451.94	14.5176	1179.67	1102.61	148.963	13.9696
46806.1065	1446.05	1446.45	1451.94	14.6206	1179.67	1102.20	148.486	14.2855
46806.1227	1446.21	1446.45	1451.94	14.6206	1179.67	1104.86	148.804	14.2855
46806.1389	1446.05	1446.61	1451.94	14.4145	1179.67	1107.32	158.510	14.2855
46806.1552	1446.05	1446.45	1451.94	14.4145	1179.67	1107.52	161.056	14.2855
46806.1723	1446.05	1446.45	1451.94	14.4145	1179.67	1106.29	158.669	14.2855

END FILE

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78

14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WL02-2	WH20P-2	WH20C-2	DEG F	PGOT	PSIA	POJ	F-B
UNITS	LB-W	LB-W	LB-W	LB-W	PSIA	PSIA	PSIA	LBS
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	11/ 32
	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
-.181953	2.96695	2.99956	13.9211	14.2379	14.4267	14.2600	-284.11	875.211
-.165194	2.96273	2.99648	13.9346	14.2571	14.4211	14.2527	-284.08	875.211
-.148991	2.96605	3.00320	13.9372	14.2519	14.4113	14.2410	-284.11	874.135
-.132772	2.96967	3.00852	13.9588	14.2519	14.4099	14.2293	-284.11	874.135
-.116459	2.98175	3.01973	13.9709	14.2449	14.4211	14.2235	-284.11	873.981
-.100254	3.00078	3.03569	13.9749	14.2361	14.4211	14.2235	-284.11	873.981
-.083560	3.01165	3.04129	13.9588	14.2361	14.4099	14.2162	-284.11	873.981
-.067244	3.01648	3.04129	13.9494	14.2379	14.4099	14.2148	-284.21	874.135
-.051040	3.01769	3.04129	13.9494	14.2274	14.4225	14.2250	-284.31	873.981
-.034731	3.00108	3.02729	13.9372	14.2099	14.4434	14.2425	-284.11	873.981
-.018516	2.83892	2.85056	13.9655	14.2081	14.4490	14.2629	-284.08	874.135
-.004295	2.28690	2.27807	14.0462	14.2239	14.4323	14.2702	-284.24	874.596
.020147	1.18770	1.16811	14.0341	14.2449	14.4044	14.2644	-284.34	875.211
.037672	.515501	.545208	14.0139	14.2379	14.4044	14.2585	-284.34	875.826
.054455	.125044	.218913	13.9440	14.2239	14.3988	14.2542	-284.37	875.826
.070668	.016030	.131527	13.9440	14.2291	14.3765	14.2410	-284.37	876.441
.086892	-.01417	.123685	14.0139	14.2361	14.3597	14.2308	-284.50	876.441
.103672	-.03591	.107721	14.0879	14.2169	14.3765	14.2352	-284.37	876.595
.119875	.011198	.117523	14.1174	14.2011	14.3988	14.2469	-284.62	877.056
.136158	.057099	.144971	14.0892	14.2081	14.4099	14.2527	-284.88	877.671
.152397	.105415	.168498	14.0569	14.2239	14.4113	14.2527	-284.85	877.671
.168609	.167321	.177461	13.9843	14.2204	14.4099	14.2483	-284.75	877.671
.185304	.210503	.155334	13.9480	14.2204	14.4099	14.2469	-284.78	877.671
.202603	.200840	.094837	13.9749	14.2361	14.4044	14.2352	-284.75	877.824
.227228	.226206	.075511	13.9816	14.2291	14.4155	14.2133	-284.85	878.285
.245243	.167019	.115563	13.9641	14.2169	14.4267	14.2191	-285.14	878.285
.261379	.102094	.170739	13.9601	14.2099	14.4155	14.2191	-284.88	878.900
.278073	.099678	.208830	13.9641	14.2099	14.3946	14.2191	-285.23	878.900
.294378	.123534	.212471	13.9332	14.2134	14.3932	14.2235	-285.39	878.900
.310597	.170642	.237678	13.9009	14.2029	14.4044	14.2308	-285.61	878.900
.327297	.179400	.226755	13.9736	14.1941	14.4113	14.2337	-285.23	878.900
.343597	.182118	.188664	14.0502	14.1959	14.4267	14.2366	-285.10	878.900
.359812	.212919	.228996	14.0233	14.1959	14.4434	14.2439	-285.36	878.900
.376590	.217751	.259245	13.9762	14.1889	14.4546	14.2542	-285.26	878.900
.392801	.152524	.227875	14.0273	14.2081	14.4434	14.2585	-285.26	879.054
.409016	.072802	.213591	14.0233	14.2309	14.4267	14.2542	-285.36	879.054
.433055	.003951	.212191	13.9695	14.2309	14.4044	14.2410	-285.39	879.054
.452983	.024485	.236558	13.9628	14.2221	14.3778	14.2133	-285.39	879.515
.469195	.094544	.242440	13.9789	14.2361	14.3653	14.2016	-285.61	880.130
.485505	.109039	.182782	13.9964	14.2361	14.3653	14.1914	-285.65	879.515
.502716	.082767	.111362	13.9601	14.2204	14.3597	14.1826	-285.36	879.669
.520409	.082465	.108001	13.9225	14.2011	14.3653	14.1826	-285.39	879.515
.536726	.067064	.134888	13.9225	14.1801	14.3876	14.2060	-285.39	880.130
.552934	.038980	.168218	13.9211	14.1732	14.3876	14.2235	-285.39	880.130
.571244	.048946	.200988	13.9359	14.1819	14.3876	14.2308	-285.74	880.130
.587460	.063742	.241319	13.9359	14.1959	14.3876	14.2366	-285.61	880.130
.604682	.060723	.227035	13.9278	14.2081	14.3904	14.2293	-285.39	880.130
.622462	.191479	.313300	13.9534	14.2151	14.3834	14.2133	-285.77	880.130
.645923	1.27890	1.34148	14.0448	14.2081	14.3723	14.1899	-286.03	879.208

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WLO2-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PGFT	
PARAMETER	WLO2-2		WH20P-2		WH20C-2		PGOT		POJ		F-B		FCALB 31941B		PGFT	
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49	
.666206	2.61485	2.67271	14.1161	14.2011	14.3653	14.1768	-286.79	878.900	789.120	449.797	731.743	722.939	-.74786	-1.1213	14.7427	
.683227	3.57604	3.63030	14.1847	14.2099	14.3653	14.1724	-285.74	878.285	828.238	701.344	1275.64	1253.48	-.74786	-1.1213	14.7427	
.699442	4.03112	4.08208	14.1417	14.2151	14.3778	14.1885	-285.39	877.671	831.318	776.009	1493.53	1476.26	-.74786	-1.1213	14.7427	
.717136	4.07612	4.12129	14.0798	14.2151	14.4044	14.2177	-285.39	877.056	828.700	770.683	1520.36	1514.22	-1.3668	-1.1213	14.7427	
.733439	3.97918	4.01822	14.0596	14.2204	14.4225	14.2469	-285.74	876.441	826.698	752.964	1494.15	1498.33	-.74786	-1.1213	14.7427	
.749671	3.87319	3.91515	14.0287	14.2309	14.4490	14.2775	-285.90	876.441	823.926	742.415	1477.15	1483.69	-.74786	-1.1213	14.7427	
.766439	3.79105	3.83953	13.9762	14.2449	14.4937	14.3228	-285.87	875.826	824.388	739.035	1473.67	1478.53	-.33525	-1.1213	14.7427	
.783650	3.75240	3.80171	13.9494	14.2449	14.5439	14.3578	-285.90	875.519	825.466	740.674	1480.22	1485.13	-.74786	-1.7399	14.9478	
.799855	3.73156	3.77483	13.9480	14.2519	14.5885	14.3987	-285.90	875.211	823.926	740.776	1482.06	1485.96	-.54156	-1.7399	14.9478	
.816637	3.70861	3.74794	13.9897	14.2449	14.6137	14.4235	-285.90	875.211	822.232	739.445	1481.86	1485.96	-.74786	-1.1213	14.7427	
.832843	3.68445	3.72385	14.0273	14.2571	14.6220	14.4395	-285.90	875.211	821.154	738.215	1482.06	1486.78	-.74786	-1.7399	14.9478	
.856392	3.66060	3.70005	14.0879	14.2641	14.6220	14.4454	-285.65	874.135	820.537	736.577	1480.63	1485.13	-.74786	-1.7399	14.9478	
.874458	3.65546	3.69080	14.0784	14.2641	14.6220	14.4410	-285.74	874.135	823.618	739.035	1485.34	1490.08	-.95417	-1.1213	14.7427	
.891610	3.65788	3.68772	14.0247	14.2519	14.6220	14.4425	-286.00	873.981	825.312	740.674	1488.00	1492.56	-.74786	-1.7399	14.9478	
.908395	3.66150	3.69024	14.0287	14.2449	14.6220	14.4454	-286.32	873.981	825.774	741.493	1489.23	1493.59	-.74786	-1.1213	14.7427	
.924603	3.66180	3.69164	14.0610	14.2449	14.6123	14.4454	-286.25	873.981	824.080	740.366	1488.00	1492.56	-.74786	-1.1213	14.5376	
.940826	3.65607	3.68632	14.0906	14.2361	14.6164	14.4512	-286.12	873.981	822.848	738.625	1486.77	1490.49	-1.5731	-1.1213	14.7427	
.957597	3.64338	3.67316	14.0879	14.2361	14.6220	14.4629	-286.03	873.367	822.848	737.396	1486.16	1490.08	-.95417	-1.7399	14.7427	
.973808	3.63372	3.66279	14.0529	14.2361	14.6164	14.4541	-286.03	873.367	823.618	736.679	1487.59	1491.94	-.74786	-1.7399	14.9478	
.991156	3.62919	3.65635	14.0529	14.2589	14.5997	14.4395	-286.12	873.367	825.312	737.396	1488.62	1492.56	-.74786	-1.7399	14.7427	
.997339	3.62889	3.65411	14.0408	14.2816	14.5788	14.4235	-286.12	873.367	825.312	737.499	1487.80	1491.73	-.74786	-1.1213	14.7427	
1.007556	3.63130	3.65411	14.0139	14.2641	14.5718	14.4118	-286.03	873.059	825.312	737.499	1488.62	1493.38	-1.3668	-1.1213	14.7427	
1.024265	3.63976	3.65383	14.0152	14.2361	14.5774	14.4162	-286.09	872.905	825.928	738.318	1490.26	1495.03	-1.1605	-1.1213	14.7427	
1.048772	3.63372	3.64739	14.0287	14.2379	14.6011	14.4104	-286.28	872.905	824.080	734.938	1485.96	1490.08	-1.1605	-1.1213	14.7427	
1.067777	3.61923	3.64487	14.0072	14.2361	14.6109	14.4060	-286.41	872.905	825.312	736.577	1487.80	1491.94	-.74786	-1.7399	14.9478	
1.084540	3.61077	3.64627	13.9803	14.2431	14.5899	14.4001	-286.51	873.367	826.082	737.806	1490.05	1494.21	-1.3668	-1.1213	14.7427	
1.100747	3.60956	3.64935	13.9709	14.2641	14.5662	14.3870	-286.67	873.059	825.928	738.215	1490.87	1495.03	-.74786	-1.1213	14.7427	
1.116972	3.61258	3.65047	13.9978	14.2851	14.5453	14.3695	-286.89	872.905	824.696	739.137	1493.74	1497.71	-1.3668	-.29643	14.1274	
1.133748	3.61198	3.64963	13.9924	14.2921	14.5551	14.3636	-286.79	871.522	822.232	736.986	1491.89	1495.03	-.74786	-1.7399	14.9478	
1.149964	3.60715	3.64263	13.9749	14.2851	14.5662	14.3695	-286.92	872.905	821.000	735.757	1487.80	1492.56	-.95417	-1.7399	14.7427	
1.166191	3.60111	3.63507	13.9655	14.2728	14.5551	14.3709	-286.63	873.981	820.384	734.631	1487.59	1490.91	-1.3668	-1.1213	14.7427	
1.183506	3.59386	3.62946	13.9803	14.2746	14.5439	14.3768	-286.67	872.905	820.692	734.528	1486.77	1490.91	-1.3668	-1.7399	15.3580	
1.199715	3.59144	3.62806	14.0072	14.2728	14.5439	14.3928	-288.45	872.905	821.154	735.348	1488.62	1493.38	-1.3668	-1.1213	14.7427	
1.216400	3.59386	3.62890	14.0341	14.2728	14.5453	14.4060	-287.15	872.905	821.770	735.348	1488.21	1492.76	-.74786	-1.1213	14.7427	
1.232695	3.59990	3.63283	14.0287	14.2659	14.5551	14.4118	-287.15	872.905	822.232	735.348	1489.23	1493.38	-1.3668	-1.1213	14.7427	
1.258124	3.59990	3.63479	13.9494	14.2484	14.5941	14.4337	-287.27	872.752	820.692	735.040	1489.23	1493.38	-1.3668	-1.1213	14.5376	
1.275390	3.59446	3.62946	13.9278	14.2379	14.6346	14.4512	-287.18	873.367	821.462	734.938	1489.03	1493.38	-1.5731	-1.1213	14.7427	
1.291601	3.59144	3.62582	13.9494	14.2501	14.6499	14.4731	-287.43	873.981	821.154	734.938	1489.23	1493.59	-1.3668	-1.1213	14.9478	
1.307820	3.59024	3.62358	13.9816	14.2781	14.6499	14.4804	-287.40	873.213	821.462	735.348	1490.05	1494.21	-1.3668	-1.1213	14.7427	
1.324597	3.58782	3.62358	14.0233	14.3043	14.6388	14.4702	-287.27	873.367	822.386	735.757	1490.05	1494.21	-1.3668	-1.1213	14.7427	
1.340808	3.59024	3.62834	14.0354	14.3078	14.6276	14.4687	-287.27	873.059	823.772	737.806	1493.94	1497.51	-1.5731	-1.1213	14.7427	
1.357163	3.59627	3.63507	14.0233	14.2938	14.6220	14.4571	-287.27	873.367	823.464	738.625	1495.17	1499.98	-1.5731	-1.1213	14.7427	
1.373337	3.59748	3.63507	13.9964	14.2798	14.6123	14.4454	-287.34	873.213	821.462	736.577	1492.30	1496.68	-1.3668	-.91508	14.7427	
1.389544	3.59627	3.63059	14.0300	14.2763	14.6039	14.4395	-287.40	873.367	822.232	736.577	1491.89	1496.68	-1.3668	-.91508	14.7427	
1.407246	3.59265	3.62694	14.0408	14.2781	14.5885	14.4220	-287.40	873.367	821.462	736.577	1493.33	1497.09	-1.5731	-1.1213	14.7427	
1.423547	3.59024	3.62246	14.0233	14.2728	14.5774	14.4104	-287.43	873.367	821.462	735.757	1491.48	1495.86	-1.3668	-1.1213	14.7427	
1.439754	3.58540	3.61798	13.9803	14.2606	14.5885	14.4016	-287.66	873.367	821.000	735.040	1490.26	1495.03	-.74786	-1.1213	14.7427	
1.463272	3.57725	3.61126	13.9816	14.2484	14.6109	14.3987	-287.78	873.213	820.537	734.221	1490.26	1494.41	-1.5731	-1.1213	14.7427	
1.480898	3.58087	3.61154	13.9910	14.2589	14.6178	14.4104	-289.98	873.367	821.924	735.245	1491.69	1496.68	-1.3668	-1.7399	14.9478	

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WL02-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PGFT
PARAMETER	WL02-2		WH20P-2		WH20C-2		PGOT		POJ		F-B		FCALB 31941B		PSIA
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
1.497504	3.58691	3.61462	14.0126	14.2641	14.6164	14.4220	-288.10	872.752	823.156	735.757	1492.51	1496.68	-1.3668	-1.7399	14.9478
1.513805	3.58540	3.61406	14.0287	14.2693	14.6220	14.4293	-287.94	873.367	823.618	735.757	1493.33	1497.09	-1.3668	-1.7399	14.9478
1.530028	3.57967	3.61350	14.0233	14.2711	14.6332	14.4337	-288.20	873.367	822.848	735.757	1493.33	1497.51	-1.3668	-1.1213	15.1529
1.546334	3.57453	3.61154	13.9924	14.2571	14.6444	14.4454	-288.17	873.367	823.464	735.348	1492.51	1496.68	-1.5731	-1.7399	14.9478
1.562541	3.57695	3.61490	13.9762	14.2449	14.6346	14.4512	-288.07	873.367	824.080	736.269	1494.15	1497.71	-1.3668	-1.1213	14.7427
1.578763	3.58571	3.62246	14.0018	14.2431	14.6276	14.4571	-288.07	873.367	823.926	736.986	1495.79	1499.98	-1.5731	-1.1213	14.5376
1.595539	3.58782	3.62274	14.0233	14.2589	14.6123	14.4571	-288.20	873.367	823.002	736.269	1494.76	1499.16	-1.1605	-1.7399	14.7427
1.611748	3.58540	3.61910	14.0233	14.2711	14.6109	14.4571	-288.17	873.367	823.464	736.269	1495.17	1499.16	-1.1605	-1.1213	14.5376
1.628448	3.58540	3.61686	14.0341	14.2746	14.6109	14.4571	-288.20	873.367	822.848	734.938	1493.33	1497.51	-1.5731	-1.1213	14.7427
1.644746	3.58299	3.61350	14.0623	14.2711	14.5997	14.4483	-288.33	873.367	822.232	734.119	1492.71	1496.89	-1.3668	-0.91508	14.7427
1.668163	3.57816	3.60790	14.0677	14.2606	14.5830	14.4235	-288.58	873.367	823.618	735.860	1495.99	1499.98	-1.5731	-1.7399	14.9478
1.687605	3.58299	3.61042	14.0516	14.2571	14.5941	14.4104	-288.68	873.367	823.618	735.860	1495.17	1499.16	-1.1605	-1.1213	14.7427
1.704913	3.58329	3.61098	14.0233	14.2361	14.6123	14.4162	-288.96	873.981	823.464	735.348	1493.33	1498.33	-0.74786	-1.1213	14.7427
1.721117	3.58057	3.60818	14.0126	14.2151	14.6332	14.4337	-288.84	873.367	821.462	733.709	1492.71	1496.89	-1.1605	-1.1213	14.7427
1.737449	3.57514	3.60370	13.9816	14.2151	14.6388	14.4512	-288.84	873.367	823.464	733.811	1492.51	1496.68	-1.3668	-1.1213	14.7427
1.753636	3.58057	3.60594	13.9910	14.2291	14.6388	14.4585	-288.80	873.367	824.696	735.450	1495.17	1499.98	-1.3668	-1.1213	14.7427
1.770855	3.58903	3.60930	14.0072	14.2466	14.6360	14.4571	-288.80	873.367	824.234	735.757	1494.97	1499.16	-1.3668	-1.9461	14.7427
1.787632	3.59507	3.60902	13.9978	14.2659	14.6276	14.4512	-288.84	873.367	823.464	735.450	1494.56	1498.75	-1.3668	-1.1213	14.7427
1.803822	3.59627	3.60594	13.9641	14.2676	14.6220	14.4352	-288.96	873.367	824.696	735.348	1494.76	1499.16	-1.3668	-1.1213	14.7427
1.820172	3.60231	3.60454	13.9319	14.2484	14.6234	14.4395	-288.96	873.367	826.390	736.577	1496.81	1500.81	-1.5731	-1.1213	14.7427
1.836390	3.61077	3.60566	13.9588	14.2379	14.6220	14.4454	-288.93	873.367	827.160	737.806	1500.09	1504.11	-1.1605	-1.1213	14.7427
1.852604	3.60956	3.60902	13.9910	14.2536	14.6164	14.4454	-289.19	873.367	826.390	737.499	1502.34	1505.76	-0.74786	-1.1213	14.7427
1.875670	3.59748	3.61266	14.0381	14.2728	14.6220	14.4512	-289.19	873.367	826.544	739.035	1503.16	1507.41	-0.74786	-1.7399	15.1529
1.894368	3.58903	3.61378	14.0892	14.2763	14.6164	14.4498	-289.35	873.367	823.618	738.215	1503.16	1506.79	-0.74786	-1.7399	14.9478
1.910432	3.58178	3.61014	14.1040	14.2991	14.6164	14.4498	-289.35	873.367	824.080	737.499	1502.54	1506.58	-1.1605	-1.1213	14.7427
1.926731	3.57212	3.60650	14.0179	14.2571	14.6220	14.4585	-289.44	873.981	823.926	737.806	1501.72	1505.76	-0.74786	-1.1213	14.7427
1.942951	3.56849	3.60566	13.9749	14.2449	14.6332	14.4629	-289.31	873.367	824.234	738.215	1503.16	1507.41	-1.3668	-1.7399	14.9478
1.959659	3.57091	3.60678	13.9709	14.2501	14.6388	14.4629	-289.19	873.367	823.926	738.215	1502.54	1506.58	-0.74786	-1.1213	14.7427
1.975954	3.57453	3.60790	13.9480	14.2589	14.6444	14.4629	-289.41	873.367	822.848	737.499	1502.54	1506.58	-0.74786	-1.9461	14.7427
1.992173	3.57574	3.60594	13.9480	14.2641	14.6346	14.4629	-289.44	873.520	822.848	736.577	1501.11	1505.14	-0.74786	-1.7399	14.9478
2.003478	3.57453	3.60454	13.9964	14.2589	14.6332	14.4629	-289.57	873.367	823.464	736.679	1502.34	1506.58	-0.74786	-1.7399	14.9478
2.020697	3.57121	3.60370	14.0394	14.2641	14.6332	14.4571	-289.73	873.367	823.618	737.089	1502.34	1506.58	-1.7794	-1.1213	14.7427
2.036914	3.57212	3.60454	14.0516	14.2641	14.6053	14.4454	-289.73	873.520	824.696	738.318	1503.98	1508.23	-0.74786	-1.1213	14.7427
2.053700	3.57574	3.61014	14.0502	14.2659	14.5997	14.4337	-289.98	873.981	823.772	737.908	1503.98	1507.62	-0.74786	-1.1213	14.7427
2.077153	3.57332	3.60902	14.0179	14.2571	14.5662	14.4133	-289.73	873.367	822.848	737.396	1503.16	1506.79	-1.1605	-1.1213	14.7427
2.096694	3.57846	3.60930	13.9937	14.2501	14.5676	14.4162	-289.73	873.520	823.618	738.625	1503.36	1508.23	-0.74786	-1.1213	14.7427
2.114374	3.58450	3.61154	14.0018	14.2449	14.5885	14.4162	-289.95	873.981	823.464	737.703	1503.16	1507.20	-1.3668	-1.7399	14.9478
2.130591	3.58420	3.60902	14.0058	14.2501	14.5899	14.4220	-289.95	873.981	822.848	736.577	1501.52	1505.76	-0.74786	-1.9461	14.7427
2.147270	3.58057	3.60566	14.0072	14.2641	14.5774	14.4220	-289.98	873.367	822.848	736.577	1502.13	1506.58	-1.1605	-1.7399	15.1529
2.163587	3.57816	3.60482	14.0233	14.2763	14.5662	14.4118	-290.11	873.981	823.156	736.679	1502.54	1506.58	-1.1605	-1.7399	14.9478
2.179789	3.57453	3.60454	14.0233	14.2921	14.5453	14.3943	-290.08	873.981	822.386	736.269	1501.72	1505.76	-0.74786	-1.7399	14.9478
2.198478	3.56849	3.60342	13.9978	14.2781	14.5341	14.3885	-290.11	873.981	821.462	735.348	1499.88	1504.11	-0.74786	-1.1213	14.7427
2.215781	3.56366	3.60202	13.9709	14.2571	14.5439	14.3870	-290.24	873.367	821.462	735.040	1499.88	1503.49	-0.74786	-1.1213	14.7427
2.232001	3.56125	3.60118	13.9601	14.2431	14.5467	14.3885	-290.24	873.981	824.696	737.089	1502.34	1506.58	-1.1605	-1.1213	14.7427
2.248308	3.56638	3.60482	13.9588	14.2449	14.5551	14.3943	-290.17	873.367	824.696	738.318	1504.59	1508.65	-1.3668	-1.1213	14.7427
2.264518	3.57332	3.60678	13.9803	14.2484	14.5718	14.3958	-290.11	873.367	824.234	738.215	1504.18	1508.23	-0.74786	-1.1213	14.7427
2.288007	3.58057	3.60566	14.0031	14.2641	14.5662	14.3768	-290.24	873.367	823.464	736.986	1503.36	1507.62	-1.3668	-1.1213	14.7427
2.306496	3.58087	3.60510	14.0085	14.2641	14.5551	14.3578	-290.46	873.367	823.464	736.577	1503.16	1507.41	-1.1605	-1.1213	14.7427
2.322726	3.58087	3.60622	13.9588	14.2484	14.5774	14.3636	-290.46	873.981	824.080	736.884	1501.52	1506.58	-0.74786	-1.1213	14.7427

## RANS-REGEN ENGINE TEST

EST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78

14:44:37

CAL DECK FILE NAME 'TR7046'

DIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WLO2-1	WLO2-2	WH2OP-1	WH2OP-2	WH2OC-1	WH2OC-2	TOFM	PGOT	POV	POJ	F-A	F-B	FCALA	31941A	PGFT
PARAMETER	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA
INITS	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
IEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
2.339420	3.57846	3.60706	13.9171	14.2291	14.6011	14.3753	-290.40	873.367	824.080	736.679	1502.13	1506.58	.077365	-1.1213	14.7427
2.355720	3.57574	3.60454	13.9601	14.2291	14.6234	14.3943	-290.72	873.367	824.080	736.577	1503.16	1506.79	-1.1605	-1.1213	14.7427
2.371882	3.57332	3.60202	13.9910	14.2361	14.6220	14.4104	-290.72	873.367	824.388	736.577	1503.16	1506.79	-1.74786	-1.1213	14.7427
2.388667	3.57604	3.60566	14.0247	14.2641	14.5997	14.4104	-290.62	873.367	824.388	737.396	1504.18	1508.23	-1.74786	-1.7399	14.9478
2.404879	3.58178	3.61098	14.0099	14.2693	14.5774	14.4045	-290.62	873.367	824.696	737.806	1504.39	1508.65	-1.3668	-1.1213	14.7427
2.421090	3.58540	3.61994	13.9762	14.2711	14.5564	14.3928	-290.62	873.367	826.236	739.035	1506.43	1510.71	-1.3668	-1.1213	14.7427
2.437868	3.59144	3.61938	13.9749	14.2589	14.5551	14.3841	-290.68	873.367	827.160	739.445	1507.46	1511.53	-1.74786	-1.7399	14.9478
2.454082	3.59748	3.61686	13.9588	14.2431	14.5662	14.3797	-290.88	873.367	826.236	738.625	1506.43	1510.71	-1.3668	-1.1213	14.7427
2.470308	3.59446	3.60902	13.9803	14.2361	14.5774	14.3870	-291.00	873.367	825.312	736.679	1503.98	1508.23	-1.74786	-1.7399	14.9478
2.495354	3.58661	3.60258	14.0247	14.2414	14.5997	14.3782	-291.16	873.367	826.082	737.806	1504.59	1508.44	-1.74786	-1.7399	15.1529
2.513421	3.58782	3.60594	14.0126	14.2571	14.6011	14.3753	-291.00	873.367	825.312	737.806	1505.00	1509.06	-1.74786	-1.1213	14.7427
2.530959	3.58299	3.60678	13.9924	14.2449	14.5997	14.3782	-291.00	873.367	824.080	736.372	1502.54	1506.79	-1.3668	-1.1213	14.7427
2.547261	3.57846	3.60370	13.9655	14.2361	14.5885	14.3753	-290.97	873.367	824.234	736.269	1503.16	1507.41	-1.3668	-1.7399	14.9478
2.563472	3.57816	3.60342	13.9426	14.2361	14.5788	14.3797	-290.84	873.367	823.464	736.167	1503.36	1507.41	-1.3668	-1.1213	14.7427
2.582160	3.57695	3.60118	13.9386	14.2519	14.5774	14.3826	-291.00	873.367	823.464	734.938	1501.72	1506.58	-1.74786	-1.1213	14.7427
2.598457	3.57453	3.60118	13.9695	14.2728	14.5690	14.3753	-291.00	873.367	825.312	735.860	1503.36	1507.41	-1.3668	-1.1213	14.7427
2.614686	3.57816	3.60202	13.9924	14.2763	14.5662	14.3753	-291.00	873.367	826.082	737.806	1505.82	1510.09	-1.1605	-1.1213	14.7427
2.631449	3.59144	3.60202	14.0099	14.2589	14.5495	14.3636	-291.13	873.367	826.698	737.499	1505.00	1509.27	-1.74786	-1.1213	14.7427
2.647653	3.60745	3.60482	13.9816	14.2449	14.5495	14.3563	-291.26	873.367	827.314	737.396	1506.43	1510.09	-1.1605	-1.7399	14.9478
2.663866	3.60715	3.60482	13.9426	14.2291	14.5592	14.3636	-291.38	873.367	827.930	737.601	1505.82	1510.09	-1.74786	-1.1213	14.7427
2.680643	3.59265	3.60566	13.9588	14.2204	14.5662	14.3826	-291.42	873.367	827.930	738.318	1506.43	1510.30	-1.3668	-1.7399	14.7427
2.705614	3.57816	3.60902	14.0179	14.2361	14.5913	14.4001	-291.48	873.367	826.390	738.420	1506.43	1510.92	-1.3668	-1.1213	14.7427
2.723262	3.57212	3.60902	14.0717	14.2274	14.6164	14.4220	-291.48	873.981	825.928	738.215	1506.43	1510.71	-1.3668	-1.1213	14.7427
2.739571	3.57332	3.60930	14.1645	14.2204	14.6234	14.4395	-291.48	873.367	824.080	737.396	1504.59	1509.06	-1.74786	-1.7399	14.7427
2.755782	3.57212	3.60482	14.1901	14.2291	14.6123	14.4425	-291.26	873.367	823.618	736.577	1505.61	1509.88	-1.3668	-1.1213	14.7427
2.772481	3.56879	3.60006	14.1860	14.2379	14.6109	14.4395	-291.48	873.367	822.848	736.167	1504.59	1509.27	-1.74786	-1.7399	14.7427
2.788791	3.56759	3.59445	14.1511	14.2361	14.6123	14.4454	-291.38	873.367	822.232	735.757	1503.16	1507.41	-1.3668	-1.1213	14.5376
2.806012	3.57091	3.59445	14.0879	14.2204	14.6220	14.4468	-291.51	873.367	822.232	736.167	1504.39	1508.23	-1.74786	-1.5337	14.3325
2.822332	3.57483	3.59669	14.0502	14.2256	14.6123	14.4395	-291.77	873.367	822.848	736.986	1504.59	1509.47	-1.3668	-1.1213	14.7427
2.838541	3.57816	3.59894	14.0623	14.2484	14.5941	14.4220	-291.67	873.520	823.464	737.396	1507.05	1510.71	-1.1605	-1.1213	14.7427
2.854757	3.57816	3.60202	14.0825	14.2571	14.5718	14.4104	-291.74	873.981	824.850	738.523	1507.66	1511.74	-1.74786	-1.1213	14.7427
2.873067	3.57816	3.60650	14.0300	14.2379	14.5774	14.4060	-291.51	873.367	822.848	738.215	1507.25	1511.53	-1.74786	-1.1213	14.7427
2.889761	3.57181	3.60482	13.9816	14.2239	14.5941	14.4118	-291.74	873.520	822.848	737.499	1506.43	1510.09	-1.3668	-1.1213	14.7427
2.912846	3.56608	3.60678	14.0677	14.2361	14.6123	14.4220	-291.26	873.367	822.848	737.499	1506.43	1510.71	-1.3668	-1.7399	14.7427
2.931854	3.56849	3.61070	14.1645	14.2431	14.6123	14.4220	-291.61	873.981	824.080	738.625	1508.07	1512.36	-1.74786	-1.7399	14.9478
2.948074	3.57514	3.61238	14.1201	14.2379	14.6109	14.4220	-291.74	873.981	823.002	737.806	1507.46	1511.53	-1.74786	-1.7399	14.9478
2.966860	3.57725	3.60706	14.0247	14.2379	14.5997	14.4177	-291.64	873.367	822.848	737.396	1507.25	1510.71	-1.3668	-1.1213	14.7427
2.983062	3.57816	3.60398	13.9816	14.2361	14.5899	14.4104	-291.77	873.367	822.386	738.215	1508.07	1512.36	-1.74786	-1.1213	14.7427
1.999297	3.57816	3.60202	13.9816	14.2361	14.5732	14.3987	-291.77	873.367	823.464	738.215	1508.07	1511.95	-1.3668	-1.1213	14.7427
-14396.998	3.58299	3.60594	13.9749	14.2379	14.5551	14.3928	-292.02	873.367	824.234	738.625	1509.71	1513.60	-1.5731	-1.1213	14.7427
-14396.982	3.58540	3.61266	13.9776	14.2361	14.5327	14.3870	-291.74	873.981	824.696	739.035	1509.71	1513.39	-1.3668	-1.1213	14.7427
-14396.966	3.58661	3.61238	13.9924	14.2361	14.5104	14.3870	-291.64	873.059	823.002	738.318	1508.28	1513.18	-1.3668	-1.1213	14.7427
-14396.949	3.58299	3.60734	14.0045	14.2361	14.5048	14.3928	-291.77	873.367	821.462	737.089	1507.25	1511.53	-1.74786	-1.7399	14.9478
-14396.932	3.57453	3.60034	13.9964	14.2379	14.5006	14.3943	-291.74	873.367	822.232	736.167	1505.61	1509.88	-1.3668	-1.1213	14.7427
-14396.916	3.57212	3.59782	13.9964	14.2431	14.4992	14.3958	-291.74	873.367	823.464	737.499	1507.25	1510.92	-1.3668	-1.1213	14.7427
-14396.892	3.57332	3.60118	14.0072	14.2484	14.4713	14.3797	-291.74	873.367	821.462	736.269	1506.43	1510.09	-1.3668	-1.1213	14.7427
-14396.873	3.56970	3.60034	13.9722	14.2431	14.4658	14.3709	-291.99	873.520	822.848	736.167	1505.00	1509.88	-1.3668	-1.1213	14.7427
-14396.857	3.57212	3.60006	13.9641	14.2326	14.4769	14.3695	-291.99	873.981	823.464	737.089	1507.25	1511.53	-1.74786	-1.1213	14.7427
-14396.840	3.57212	3.59473	13.9547	14.2204	14.4937	14.3695	-291.77	873.367	821.462	736.167	1505.82	1510.71	-2.3983	-1.1213	14.7427



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78

14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WLO2-1	WLO2-2	WH20P-1	WH20P-2	WH20C-1	WH20C-2	TOFM	PGOT	POV	POJ	F-A	FCALA 31941A	PGFT
PARAMETER	LR-W	LR-W	LR-W	LR-W	LR-W	LR-W	DEF F	PSIA	PSIA	PSIA	LBS	LBS	LBS
UNITS	LR-W	LR-W	LR-W	LR-W	LR-W	LR-W	DEF F	PSIA	PSIA	PSIA	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45
-14396.824	3.56759	3.58997	13.9413	14.2151	14.5104	14.3695	-291.74	873.367	821.154	734.938	1504.18	1508.23	-1.7399
-14396.807	3.56638	3.59221	13.9588	14.2361	14.5160	14.3636	-291.93	873.367	822.232	736.577	1506.64	1510.71	-1.7399
-14396.790	3.56849	3.59754	14.0018	14.2466	14.5341	14.3695	-291.89	873.367	822.848	737.499	1508.28	1512.36	-1.7399
-14396.773	3.57091	3.60006	14.0596	14.2501	14.5564	14.3812	-292.02	873.367	822.386	737.089	1507.46	1511.53	-1.7399
-14396.756	3.57332	3.60062	14.0610	14.2519	14.5662	14.3928	-292.15	873.367	821.462	735.860	1506.43	1510.09	-1.7399
-14396.740	3.57332	3.59669	14.0502	14.2571	14.5662	14.3870	-291.89	873.367	822.386	735.040	1505.61	1509.88	-1.7399
-14396.724	3.57453	3.59585	14.0179	14.2484	14.5662	14.3826	-291.89	873.367	823.464	736.167	1506.43	1510.92	-1.7399
-14396.706	3.57695	3.59950	13.9601	14.2239	14.5662	14.3885	-292.02	873.367	824.696	737.396	1507.87	1511.53	-1.7399
-14396.683	3.58420	3.60678	13.9601	14.2151	14.5551	14.3826	-292.15	873.367	824.696	738.215	1509.92	1514.01	-1.7399
-14396.664	3.58359	3.60706	14.0825	14.2291	14.5676	14.3826	-292.18	873.367	825.312	737.396	1508.07	1511.74	-1.7399
-14396.648	3.58057	3.60594	14.1632	14.2239	14.5788	14.3870	-292.15	873.367	825.466	737.601	1509.92	1513.18	-1.7399
-14396.631	3.57453	3.60482	14.1645	14.2204	14.5885	14.3928	-292.15	873.367	825.928	738.215	1508.28	1512.36	-1.7399
-14396.615	3.57816	3.60818	14.0986	14.2291	14.6011	14.4001	-292.15	873.367	825.312	737.908	1509.71	1513.39	-1.7399
-14396.599	3.58450	3.60594	14.0394	14.2291	14.6220	14.4104	-292.24	873.520	824.080	736.986	1509.71	1513.39	-1.7399
-14396.583	3.58540	3.59810	14.0018	14.2186	14.6332	14.4162	-292.28	873.367	823.002	734.938	1505.82	1510.71	-1.7399
-14396.566	3.58299	3.59557	14.0260	14.2239	14.6388	14.4177	-292.18	873.520	823.464	735.348	1505.41	1509.88	-1.7399
-14396.550	3.58329	3.59557	14.0569	14.2379	14.6388	14.4177	-292.02	873.981	823.618	734.938	1504.80	1509.27	-1.7399
-14396.533	3.58812	3.59698	14.0610	14.2431	14.6276	14.4162	-292.02	873.981	827.160	736.986	1508.28	1512.36	-1.7399
-14396.517	3.59627	3.60202	14.0462	14.2449	14.6109	14.4016	-291.99	873.981	828.392	739.035	1511.14	1515.04	-1.7399
-14396.501	3.60231	3.60566	14.0704	14.2431	14.5997	14.3943	-291.77	873.981	827.776	738.523	1510.53	1514.83	-1.7399
-14396.478	3.59778	3.60678	14.0677	14.2309	14.6109	14.3928	-291.99	873.367	825.312	737.396	1509.10	1513.18	-1.7399
-14396.459	3.58450	3.60146	13.9964	14.2151	14.6234	14.4016	-292.50	873.520	823.618	736.269	1507.46	1511.53	-1.7399
-14396.442	3.57332	3.59894	13.9709	14.2081	14.6276	14.4162	-292.24	873.981	825.312	736.577	1508.28	1512.36	-1.7399
-14396.425	3.57212	3.60062	14.0018	14.2029	14.6220	14.4220	-292.24	873.981	826.236	738.215	1510.94	1515.04	-1.7399
-14396.409	3.57604	3.60566	14.0233	14.2099	14.6123	14.4220	-292.28	873.367	824.696	738.215	1510.73	1514.83	-1.7399
-14396.392	3.57846	3.60678	14.0072	14.2099	14.6109	14.4162	-292.24	873.981	822.848	737.396	1509.71	1513.18	-1.7399
-14396.375	3.57574	3.60202	14.0018	14.2151	14.6109	14.4162	-292.02	873.367	821.462	735.348	1506.64	1510.92	-1.7399
-14396.359	3.57091	3.59669	14.0072	14.2186	14.5997	14.4104	-292.24	873.367	821.462	734.938	1506.43	1510.71	-1.7399
-14396.342	3.56366	3.59473	13.9857	14.2239	14.5885	14.4045	-292.28	873.367	821.308	734.938	1505.82	1510.30	-1.7399
-14396.326	3.56366	3.59585	13.9641	14.2361	14.5690	14.3987	-292.40	873.981	823.464	736.679	1508.89	1512.36	-1.7399
-14396.308	3.56547	3.60006	13.9588	14.2431	14.5551	14.3753	-292.40	873.367	824.696	738.318	1509.92	1514.22	-1.7399
-14396.291	3.56849	3.60454	13.9494	14.2361	14.5564	14.3753	-292.28	873.520	824.696	738.728	1510.53	1514.83	-1.7399
-14396.264	3.56729	3.60482	13.9816	14.2151	14.5662	14.3695	-292.18	873.367	821.462	737.396	1509.10	1513.18	-1.7399
-14396.248	3.56608	3.60146	13.9709	14.2379	14.5551	14.3695	-292.37	873.981	821.462	736.269	1508.07	1511.74	-1.7399
-14396.231	3.56155	3.59894	13.9211	14.2204	14.5439	14.3753	-292.15	873.981	823.464	736.577	1508.28	1512.36	-1.7399
-14396.215	3.56608	3.60006	13.9534	14.2151	14.5327	14.3870	-292.18	873.367	824.388	737.806	1509.92	1514.01	-1.7399
-14396.198	3.57332	3.60342	13.9857	14.2011	14.5327	14.4045	-292.18	873.367	824.696	737.806	1510.73	1514.83	-1.7399
-14396.182	3.57816	3.60678	13.9803	14.1941	14.5453	14.4177	-292.28	873.367	823.464	737.499	1510.53	1514.01	-1.7399
-14396.166	3.58420	3.61014	13.9588	14.2029	14.5662	14.4264	-292.28	873.981	824.234	738.318	1510.73	1514.83	-1.7399
-14396.149	3.59024	3.61126	13.9803	14.2151	14.5662	14.4162	-292.24	873.367	823.772	738.625	1512.17	1516.49	-1.7399
-14396.133	3.58571	3.60650	14.0233	14.2361	14.5439	14.3928	-292.53	873.520	822.232	736.577	1509.71	1513.39	-1.7399
-14396.117	3.57816	3.60006	14.0838	14.2431	14.5271	14.3636	-292.66	873.367	821.462	734.938	1506.64	1511.53	-1.7399
-14396.101	3.57574	3.59305	14.0798	14.2309	14.5271	14.3461	-292.37	874.596	821.462	735.348	1509.71	1510.30	-1.7399
-14396.084	3.57604	3.59249	14.0018	14.2169	14.5439	14.3403	-292.28	873.367	821.462	735.348	1507.25	1511.53	-1.7399
-14396.060	3.57453	3.59249	13.9534	14.2204	14.5774	14.3534	-292.28	873.367	822.232	735.757	1507.66	1511.53	-1.7399
-14396.043	3.57212	3.59642	13.9372	14.2239	14.5885	14.3724	-292.24	875.211	823.926	737.499	1510.73	1514.83	-1.7399
-14396.027	3.57332	3.60006	13.9319	14.2291	14.6109	14.3987	-292.28	873.981	823.464	737.089	1509.92	1514.01	-1.7399
-14396.011	3.57332	3.59894	13.9520	14.2361	14.6109	14.4104	-292.53	873.981	823.464	736.167	1509.71	1513.60	-1.7399
3.998657	3.57091	3.59585	13.9588	14.2431	14.5899	14.4162	-292.40	873.520	823.002	735.860	1509.71	1513.18	-1.7399

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	PQV	F-A	FCALA 31941A	PGFT							
PARAMETER	WLO2-2	WH20P-2	WH20C-2				FCALB 31941B								
JNITS	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	LBS	PSIA							
VEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
4.015338	3.57000	3.59669	13.9547	14.2361	14.5830	14.4220	-292.37	873.520	823.618	736.269	1509.10	1513.18	-1.3668	-1.1213	14.7427
4.032631	3.57453	3.60034	13.9507	14.2291	14.5774	14.4264	-292.53	873.520	825.928	738.215	1511.35	1515.66	-1.3668	-1.1213	14.7427
4.048859	3.58057	3.60566	13.9776	14.2361	14.5662	14.4220	-292.79	873.981	827.314	739.854	1513.81	1517.52	-1.74786	-1.7399	14.9478
4.066643	3.58540	3.61238	13.9803	14.2361	14.5439	14.4060	-292.75	873.520	827.314	739.854	1514.01	1518.14	-1.74786	-1.1213	14.7427
4.082857	3.59024	3.61378	14.0139	14.2361	14.5327	14.4001	-292.40	873.981	826.544	739.342	1512.99	1517.52	-1.74786	-1.1213	14.7427
4.099071	3.59024	3.61238	14.1538	14.2239	14.5285	14.3928	-292.53	873.520	824.696	737.806	1510.53	1514.83	-1.74786	-1.1213	14.3325
4.116843	3.58450	3.60790	14.2627	14.2763	14.5271	14.3797	-292.75	873.981	825.312	736.679	1510.12	1514.01	-1.3668	-1.7399	14.9478
4.140283	3.58480	3.60566	14.1645	14.5649	14.5439	14.3870	-292.40	873.367	826.698	738.318	1512.17	1515.87	-1.74786	-1.7399	14.9478
4.159254	3.58812	3.60930	14.0569	14.5160	14.5551	14.3943	-292.37	873.981	827.776	739.445	1514.22	1518.14	-1.74786	-1.7399	14.7427
4.176559	3.58782	3.61238	14.0139	14.3865	14.5551	14.3928	-292.28	873.981	826.236	738.318	1513.81	1518.14	-1.74786	-1.7399	14.9478
4.192772	3.57816	3.60902	13.9857	14.2991	14.5495	14.3797	-292.24	873.981	825.928	737.396	1512.99	1516.69	-1.74786	-1.1213	14.7427
4.209461	3.57483	3.60482	13.9480	14.2606	14.5383	14.3768	-292.15	873.367	825.928	737.499	1512.17	1515.87	-1.74786	-1.29643	15.1529
4.225764	3.57695	3.60454	13.9494	14.2361	14.5327	14.3709	-292.28	873.520	826.082	738.215	1511.35	1515.66	-1.74786	-1.1213	14.7427
4.241971	3.58299	3.60566	13.9749	14.2291	14.5327	14.3695	-292.44	873.367	827.160	738.215	1512.99	1516.69	-1.74786	-1.91508	14.7427
4.258287	3.58540	3.60790	13.9709	14.2186	14.5439	14.3768	-292.50	873.367	826.390	738.625	1513.19	1517.52	-1.74786	-1.91508	14.7427
4.274476	3.58087	3.60454	13.9749	14.2151	14.5662	14.3928	-292.53	873.367	826.082	737.396	1512.99	1516.49	-1.74786	-1.1213	14.7427
4.290694	3.58601	3.60202	13.9830	14.2151	14.5718	14.4104	-292.63	872.905	826.236	738.215	1512.37	1516.49	-1.74786	-1.1213	14.7427
4.308464	3.60352	3.60342	13.9722	14.2151	14.5885	14.4162	-293.01	873.367	827.930	737.806	1511.14	1515.66	-1.74786	-1.1213	14.7427
4.324654	3.61439	3.60790	13.9588	14.2099	14.6011	14.4264	-293.17	873.367	829.008	739.547	1514.01	1518.14	-1.74786	-1.1213	14.7427
4.347684	3.60231	3.60902	13.9588	14.2151	14.6123	14.3928	-293.04	873.367	825.312	737.396	1512.99	1515.04	-1.74786	-1.1213	14.7427
4.366172	3.58782	3.60202	13.9668	14.2291	14.5997	14.4220	-292.75	873.367	825.312	736.167	1511.55	1515.66	-1.1605	-1.7399	14.7427
4.382389	3.58299	3.60006	13.9534	14.2449	14.5830	14.4162	-292.69	873.981	826.390	736.577	1512.99	1516.49	-1.3668	-1.1213	14.7427
4.399170	3.58540	3.60146	13.9547	14.2484	14.5662	14.3987	-292.47	873.367	827.776	738.728	1515.44	1519.79	-1.74786	-1.1213	14.7427
4.415388	3.59265	3.60790	13.9749	14.2431	14.5606	14.3928	-292.40	873.367	827.314	739.547	1516.26	1519.99	-1.3668	-1.1213	14.7427
4.431613	3.59024	3.60902	13.9655	14.2361	14.5662	14.3928	-292.15	873.367	825.312	738.215	1511.55	1515.87	-1.74786	-1.7399	14.7427
4.449371	3.57936	3.60454	13.9346	14.2309	14.5606	14.3870	-292.28	873.367	823.772	735.757	1510.32	1514.22	-1.3668	-1.7399	14.7427
4.465592	3.57091	3.60118	13.9480	14.2361	14.5551	14.3812	-292.53	873.367	824.696	735.757	1509.71	1513.39	-1.74786	-1.1213	14.7427
4.482292	3.56608	3.59922	13.9803	14.2151	14.5453	14.3768	-292.63	873.367	825.312	736.167	1510.73	1514.83	-1.74786	-1.1213	14.7427
4.498588	3.56849	3.60146	13.9789	14.2151	14.5341	14.3753	-292.50	873.520	826.236	737.499	1513.19	1516.90	-1.74786	-1.1213	14.7427
4.514797	3.57091	3.60230	13.9292	14.2099	14.5341	14.3797	-292.28	873.981	825.466	737.396	1512.37	1516.07	-1.3668	-1.1213	14.7427
4.532488	3.57695	3.60202	13.9171	14.2099	14.5439	14.3885	-292.40	873.520	825.312	738.215	1513.81	1518.14	-1.74786	-1.1213	14.7427
4.556508	3.58540	3.60454	13.9157	14.2204	14.5564	14.3987	-292.24	873.367	825.928	737.601	1512.99	1517.31	-1.3668	-1.1213	14.7427
4.575463	3.58903	3.60650	13.9117	14.2326	14.5551	14.3943	-292.15	873.520	826.236	738.215	1514.62	1518.34	-1.74786	-1.91508	14.7427
4.592144	3.58782	3.60706	13.9157	14.2291	14.5564	14.3987	-292.75	873.981	825.466	737.806	1514.62	1519.17	-1.74786	-1.1213	10.8458
4.608438	3.58299	3.60594	13.9494	14.2291	14.5662	14.3943	-292.28	873.367	824.696	736.986	1512.37	1516.69	-1.74786	-1.1213	14.7427
4.624665	3.57936	3.60398	13.9803	14.2291	14.5662	14.3870	-292.40	873.981	826.082	737.396	1514.01	1518.14	-1.74786	-1.1213	14.7427
4.641448	3.57725	3.60370	13.9588	14.2361	14.5551	14.3753	-292.63	873.520	826.544	738.215	1514.62	1518.55	-1.5731	-1.1213	14.7427
4.658650	3.57816	3.60454	13.9641	14.2361	14.5341	14.3636	-292.88	873.367	825.312	739.035	1515.44	1519.79	-1.3668	-1.1213	14.7427
4.674862	3.58087	3.60454	14.0018	14.2361	14.5160	14.3549	-292.53	873.367	824.388	737.806	1513.81	1517.31	-1.74786	-1.1213	14.7427
4.691648	3.58420	3.60454	14.0247	14.2291	14.5048	14.3578	-292.37	873.367	824.234	737.396	1512.99	1516.69	-1.74786	-1.7399	14.7427
4.707865	3.58178	3.60454	14.0179	14.2186	14.5048	14.3593	-292.37	873.367	825.312	736.577	1512.99	1516.69	-1.74786	-1.7399	14.7427
4.724734	3.57695	3.60650	14.0072	14.2291	14.5230	14.3636	-292.28	873.367	824.696	737.396	1513.81	1517.52	-1.74786	-1.1213	14.7427
4.742388	3.57514	3.60706	14.0260	14.2361	14.5383	14.3695	-292.50	873.367	824.850	737.499	1513.81	1518.14	-1.74786	-1.7399	14.9478
4.766000	3.58057	3.60678	14.1040	14.2204	14.5439	14.3695	-292.50	873.367	825.928	737.806	1513.19	1517.31	-1.74786	-1.1213	14.7427
4.785212	3.57936	3.60370	14.1322	14.2204	14.5439	14.3695	-292.28	873.367	824.850	737.396	1512.99	1516.69	-1.74786	-1.1213	14.7427
4.801346	3.57816	3.60118	14.1524	14.2204	14.5439	14.3695	-292.02	873.520	825.312	736.782	1512.17	1516.69	-1.74786	-1.1213	14.7427
4.817563	3.58057	3.59894	14.1161	14.2204	14.5495	14.3753	-292.24	873.520	825.466	736.986	1512.99	1516.69	-1.74786	-1.7399	14.9478
4.834341	3.58057	3.60034	14.0233	14.2151	14.5551	14.3870	-292.28	873.367	826.236	736.986	1512.99	1516.69	-1.74786	-1.7399	14.9478
4.851551	3.57816	3.60202	13.9547	14.2011	14.5662	14.3943	-292.28	873.367	826.236	737.806	1513.60	1517.31	-1.3668	-1.1213	14.7427



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WL02-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A	PGFT	
PARAMETER		WL02-2		WH20P-2		WH20C-2							FCALB 31941B		
UNITS	LB-W	LR-W	LB-W	LR-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	PSIA	
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
4.867779	3.57212	3.60202	13.9399	14.2029	14.5774	14.4031	-292.47	873.367	824.850	737.499	1513.40	1517.31	-74786	-1.7399	14.9478
4.884559	3.56970	3.59950	13.9346	14.2186	14.5774	14.4045	-292.24	873.367	823.464	735.962	1511.14	1515.66	-1.1605	-1.1213	14.7427
4.900772	3.57363	3.59557	13.9857	14.2344	14.5662	14.3928	-292.50	873.520	824.696	735.860	1512.17	1516.49	-74786	-1.1213	14.7427
4.918475	3.57846	3.59669	14.0341	14.2571	14.5495	14.3753	-292.53	873.367	825.312	737.396	1513.81	1517.31	-74786	-1.1213	14.7427
4.934762	3.58178	3.59894	14.0394	14.2519	14.5439	14.3549	-292.44	873.367	825.928	737.396	1513.40	1517.31	-74786	-0.91508	14.7427
4.951979	3.58329	3.60118	14.0126	14.2431	14.5495	14.3359	-292.47	873.367	826.852	737.806	1514.01	1518.14	-74786	-1.1213	14.7427
4.975044	3.58299	3.60342	13.9964	14.2169	14.5578	14.3286	-292.24	873.367	825.312	738.215	1514.62	1518.96	-74786	-1.1213	14.7427
3.994183	3.58299	3.60118	13.9964	14.2099	14.5495	14.2863	-293.81	873.367	824.234	736.577	1513.19	1517.31	-74786	-1.1213	14.7427
-55.005703	3.58299	3.59782	14.0139	14.2186	14.5383	14.3228	-292.28	873.981	823.926	735.757	1511.14	1515.04	-74786	-1.9461	14.9478
-54.989386	3.57604	3.59305	14.0309	14.2186	14.5341	14.3315	-292.28	873.981	824.080	735.348	1510.53	1514.83	-74786	-1.1213	14.3325
-54.973174	3.57332	3.59109	14.0447	14.2081	14.5439	14.3417	-292.40	873.981	825.928	735.757	1510.73	1514.83	-74786	-1.1213	14.7427
-54.956491	3.57332	3.59361	14.0610	14.2099	14.5467	14.3520	-292.28	873.520	825.928	737.703	1513.81	1518.14	-74786	-1.7399	14.7427
-54.940193	3.57725	3.59810	14.0623	14.2151	14.5551	14.3695	-292.50	873.367	826.698	738.215	1514.62	1518.55	-74786	-1.7399	14.9478
-54.923959	3.58540	3.60202	14.0623	14.2204	14.5662	14.3841	-292.28	873.367	827.160	738.215	1515.44	1519.79	-74786	-1.1213	14.7427
-54.907658	3.58661	3.60202	14.0690	14.2239	14.5662	14.3899	-292.37	873.367	825.928	736.577	1513.19	1517.52	-74786	-1.1213	14.7427
-54.891447	3.58661	3.60202	14.1148	14.2361	14.5662	14.3885	-292.47	873.367	826.390	736.679	1513.40	1517.52	-1.3668	-1.1213	14.7427
-54.875218	3.59024	3.60342	14.1577	14.2361	14.5495	14.3753	-292.44	873.367	827.160	737.396	1513.81	1518.14	-74786	-1.1213	14.7427
-54.858459	3.59265	3.60454	14.0892	14.2361	14.5453	14.3695	-292.40	873.367	825.466	737.806	1514.01	1518.14	-74786	-1.1213	14.7427
-54.832673	3.59658	3.60118	14.0309	14.2081	14.5662	14.3797	-292.50	873.367	825.466	736.167	1511.55	1515.66	-1.3668	-1.1213	14.7427
-54.816095	3.59627	3.59726	14.0309	14.1906	14.5690	14.3928	-292.53	873.981	827.160	736.986	1512.99	1517.31	-74786	-1.1213	14.7427
-54.798798	3.58812	3.59557	14.0663	14.1871	14.5718	14.4045	-292.91	873.981	828.392	736.577	1512.99	1517.31	-74786	-1.1213	14.7427
-54.782578	3.58178	3.59894	14.0448	14.2011	14.5885	14.4104	-292.98	873.981	829.624	738.215	1514.62	1518.96	-74786	-1.1213	14.7427
-54.765882	3.57846	3.60566	14.0233	14.2081	14.6123	14.4162	-292.79	873.367	827.776	738.215	1515.44	1519.79	-74786	-1.1213	14.7427
-54.749586	3.57816	3.60790	13.9870	14.2081	14.6234	14.4162	-292.63	873.981	827.930	738.215	1514.83	1518.96	-74786	-1.1213	14.7427
-54.733368	3.57816	3.60650	13.9586	14.2151	14.6164	14.4060	-292.79	873.520	826.390	737.908	1515.44	1518.96	-74786	-1.1213	14.7427
-54.716579	3.58420	3.60818	13.9695	14.2256	14.5941	14.3987	-292.53	873.367	827.468	739.547	1517.70	1521.85	-1.3668	-1.1213	14.7427
-54.700371	3.59386	3.61238	14.0139	14.2361	14.5732	14.3885	-292.72	873.367	827.160	739.445	1517.29	1521.64	-74786	-1.1213	14.7427
-54.684152	3.59144	3.61098	14.0139	14.2204	14.5676	14.3870	-292.88	873.367	825.312	737.806	1515.44	1519.79	-74786	-1.1213	14.5376
-54.667367	3.58329	3.60790	14.0059	14.2011	14.5662	14.3987	-292.50	873.367	824.388	737.806	1513.81	1518.14	-74786	-1.1213	14.7427
-54.651159	3.57816	3.60566	13.9709	14.2011	14.5662	14.4031	-292.50	873.367	825.312	737.703	1514.22	1519.79	-1.7794	-0.91508	14.3325
-54.625350	3.57846	3.60678	13.9346	14.2011	14.5774	14.4162	-292.28	873.367	826.698	739.035	1517.08	1520.61	-1.5731	-1.1213	14.7427
-54.606898	3.58178	3.60930	13.9709	14.2361	14.5830	14.4177	-292.28	873.981	825.928	738.215	1516.26	1519.99	-1.1605	-1.1213	14.7427
-54.590681	3.57634	3.60790	13.9870	14.2431	14.5885	14.4104	-292.50	873.981	824.696	736.986	1515.44	1519.79	-1.3668	-1.7399	14.9478
-54.574390	3.57242	3.60454	13.9816	14.2414	14.5941	14.4001	-292.79	873.981	824.696	736.986	1514.42	1518.34	-74786	-1.1213	14.7427
-54.558174	3.57121	3.60062	13.9641	14.2309	14.5885	14.3928	-292.53	873.981	824.696	737.396	1513.81	1518.14	-74786	-1.1213	14.7427
-54.541954	3.56608	3.59698	13.9157	14.2186	14.5718	14.3928	-292.53	873.520	823.772	736.782	1512.99	1517.31	-74786	-1.7399	14.7427
-54.525176	3.56004	3.59473	13.8781	14.2081	14.5662	14.4074	-292.40	873.367	824.850	737.396	1514.83	1518.96	-74786	-1.7399	14.7427
-54.508965	3.56396	3.59894	13.9278	14.2011	14.5662	14.4220	-292.50	873.981	825.928	738.215	1517.08	1521.44	-74786	-1.7399	14.7427
-54.491738	3.57332	3.60006	14.0139	14.2011	14.5718	14.4293	-292.79	873.981	824.388	736.679	1514.42	1518.34	-74786	-1.7399	14.9478
-54.475443	3.57936	3.60174	14.0516	14.2151	14.5676	14.4264	-292.91	873.981	825.312	737.089	1514.83	1518.96	-0.77365	-1.7399	14.9478
-54.459233	3.58420	3.60454	14.0072	14.2204	14.5676	14.4235	-292.91	873.520	824.080	737.806	1514.62	1518.34	-74786	-1.1213	14.7427
-54.442505	3.58661	3.60454	13.9225	14.2151	14.5774	14.4162	-292.63	873.981	825.928	738.420	1515.03	1519.79	-74786	-1.1213	14.7427
-54.419029	3.58299	3.60622	13.8566	14.2011	14.5830	14.4104	-292.24	873.981	826.082	738.318	1517.08	1520.82	-1.3668	-1.1213	14.7427
-54.400012	3.57453	3.60202	13.8660	14.1871	14.5885	14.4104	-292.28	873.981	826.390	738.215	1516.26	1520.61	-1.3668	-1.1213	14.7427
-54.383237	3.57212	3.60258	13.9265	14.1801	14.5885	14.4118	-292.50	873.981	827.160	738.625	1517.08	1521.44	-74786	-1.1213	14.7427
-54.366020	3.57483	3.60678	13.9641	14.1959	14.5774	14.4162	-292.79	873.981	827.776	739.137	1517.90	1522.26	-74786	-1.1213	14.7427
-54.348811	3.57695	3.61070	13.9803	14.2151	14.5718	14.4104	-292.53	873.981	827.160	738.215	1516.47	1520.61	-1.1605	-1.1213	14.7427
-54.332513	3.57725	3.61098	13.9426	14.2291	14.5774	14.4162	-292.28	873.981	825.620	738.215	1516.26	1520.61	-74786	-1.5337	14.7427
-54.316292	3.57695	3.60706	13.9157	14.2291	14.5885	14.4104	-292.50	873.981	824.696	738.625	1515.44	1519.79	-74786	-1.1213	14.3325

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT							
PARAMETER	WLO2-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B	PSIA							
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
-54.299591	3.57695	3.60006	13.9265	14.2291	14.5941	14.3987	-292.50	873.981	823.618	735.757	1512.99	1516.90	-1.74786	-1.1213	14.7427
-54.283285	3.57212	3.59221	13.9494	14.2204	14.6053	14.3943	-292.24	873.981	823.772	735.757	1513.81	1517.52	-1.74786	-1.7399	14.7427
-54.267061	3.56849	3.58801	13.9709	14.2151	14.6220	14.4045	-292.24	873.520	824.080	736.577	1515.03	1518.96	-1.74786	-1.1213	14.7427
-54.250763	3.57151	3.58885	13.9870	14.2011	14.6332	14.4162	-292.28	873.981	825.312	736.986	1515.65	1519.79	-1.1605	-1.1213	14.7427
-54.234545	3.58057	3.59557	13.9883	14.1941	14.6332	14.4249	-292.37	873.981	826.082	738.215	1517.49	1521.44	-1.74786	-1.7399	14.7427
-54.210332	3.58420	3.60202	13.9588	14.2204	14.6234	14.4279	-292.63	873.367	825.928	737.806	1516.26	1519.79	-1.1605	-1.7399	14.7427
-54.190430	3.57393	3.60006	13.9494	14.2361	14.6220	14.4337	-292.40	873.981	826.390	736.986	1514.62	1518.96	-1.74786	-1.1213	14.7427
-54.174299	3.57212	3.59894	13.9319	14.2151	14.6388	14.4352	-292.37	873.981	826.698	737.806	1516.26	1519.99	-1.74786	-1.1213	14.7427
-54.157597	3.57212	3.60006	13.9305	14.2081	14.6513	14.4454	-292.28	873.981	825.620	737.089	1515.03	1518.96	-1.74786	-1.1213	14.7427
-54.141310	3.57212	3.59438	13.9534	14.2151	14.6499	14.4454	-292.40	873.981	825.466	736.986	1515.85	1519.79	-1.1605	-1.7399	14.7427
-54.125095	3.57332	3.59669	13.9480	14.2291	14.6346	14.4395	-292.50	873.981	825.928	736.986	1515.65	1519.79	-1.1605	-1.1213	14.7427
-54.106779	3.57453	3.59445	13.9372	14.2361	14.6220	14.4395	-292.63	873.981	825.004	736.372	1514.01	1518.34	-1.74786	-1.1213	14.7427
-54.090577	3.57212	3.59109	13.9520	14.2431	14.6109	14.4249	-292.53	873.981	825.928	736.986	1515.44	1519.79	-1.1605	-1.1213	14.7427
-54.074355	3.57332	3.59165	13.9857	14.2396	14.5941	14.4162	-292.66	873.981	825.312	736.679	1515.65	1519.79	-1.3668	-1.1213	14.7427
-54.057571	3.57332	3.59221	13.9641	14.2204	14.5899	14.4133	-292.53	873.520	825.312	735.757	1512.99	1516.69	-1.74786	-1.7399	14.7427
-54.041367	3.57816	3.59669	13.9762	14.2151	14.5885	14.4162	-292.53	873.981	825.312	736.577	1514.83	1518.96	-1.74786	-1.7399	14.7427
-54.024666	3.57634	3.59782	14.0556	14.2204	14.5885	14.4162	-292.79	873.828	825.312	736.167	1514.01	1518.34	-1.74786	-1.7399	14.7427
-55.001102	3.57604	3.60006	14.0811	14.2361	14.5676	14.4045	-292.53	873.981	826.544	738.215	1517.70	1522.26	-1.74786	-1.1213	14.5376
6.007598	3.57514	3.59894	14.0879	14.2361	14.5662	14.3928	-292.63	873.520	826.390	738.215	1517.49	1521.44	-1.74786	-1.1213	14.7427
6.025112	3.57574	3.59557	14.1040	14.2204	14.5662	14.3797	-292.66	873.981	826.082	736.577	1515.44	1519.79	-1.74786	-1.1213	14.7427
6.042397	3.58661	3.59137	14.0932	14.2011	14.5718	14.3782	-292.53	873.981	827.776	735.860	1513.81	1518.14	-1.74786	-1.1213	14.7427
6.058616	3.59990	3.59557	14.1040	14.1906	14.5774	14.3870	-292.02	873.520	828.854	737.499	1516.26	1519.79	-1.74786	-1.1213	14.7427
6.075398	3.59990	3.60006	14.1753	14.1924	14.5676	14.3885	-291.93	873.981	828.700	737.396	1517.29	1521.44	-1.74786	-0.91508	14.7427
6.093606	3.58661	3.59754	14.2008	14.2081	14.5690	14.3870	-292.28	873.981	828.392	736.782	1515.44	1519.79	-1.74786	-1.1213	14.7427
6.109858	3.57695	3.59669	14.1686	14.2204	14.5802	14.3928	-292.24	873.981	829.162	737.806	1517.08	1521.44	-1.74786	-1.1213	14.5376
6.126611	3.57393	3.59894	14.1322	14.2361	14.5830	14.3870	-292.24	873.981	828.392	739.035	1517.90	1522.26	-1.74786	-1.1213	14.7427
6.142826	3.57363	3.60034	14.0879	14.2379	14.5774	14.3797	-292.02	873.981	827.160	737.499	1516.26	1519.99	-1.74786	-1.1213	14.7427
6.160179	3.57695	3.60006	14.0421	14.2361	14.5718	14.3753	-292.02	873.520	827.776	737.806	1516.26	1519.99	-1.74786	-1.1213	14.7427
6.176329	3.58178	3.60202	14.0273	14.2291	14.5551	14.3578	-292.28	873.981	829.008	739.445	1519.74	1524.12	-1.3668	-1.1213	14.7427
6.200242	3.59386	3.61014	13.9709	14.2151	14.5271	14.3461	-292.28	873.981	827.930	739.445	1520.36	1524.12	-1.3668	-1.1213	14.7427
6.218454	3.59869	3.61098	13.9534	14.1959	14.5216	14.3476	-292.12	873.981	827.314	739.035	1519.74	1523.91	-1.3668	-1.1213	14.7427
6.235541	3.59567	3.60790	13.9426	14.2029	14.5216	14.3520	-292.15	873.981	825.312	738.318	1518.11	1523.09	-1.3668	-0.91508	14.7427
6.251737	3.58299	3.60118	13.9157	14.2099	14.5230	14.3578	-292.12	873.981	823.464	736.269	1514.83	1519.17	-1.74786	-0.91508	14.7427
6.268505	3.57212	3.59445	13.9117	14.2151	14.5327	14.3636	-292.28	873.520	822.848	736.269	1515.44	1518.96	-1.74786	-0.91508	14.7427
6.285717	3.56608	3.59333	13.9426	14.2204	14.5216	14.3578	-292.28	873.981	823.464	736.679	1516.26	1519.99	-1.74786	-1.1213	14.7427
6.302412	3.55913	3.59305	13.9359	14.2291	14.5048	14.3534	-292.28	873.981	822.848	736.577	1515.65	1519.79	-1.74786	-1.1213	14.7427
6.318715	3.55672	3.59109	13.9319	14.2361	14.5006	14.3520	-292.28	873.520	822.386	735.757	1514.83	1518.96	-1.74786	-1.7399	14.9478
6.334935	3.56004	3.58829	13.9211	14.2291	14.4992	14.3549	-292.40	873.981	822.848	735.757	1514.62	1518.96	-1.74786	-1.7399	14.9478
6.352612	3.56366	3.58661	13.9157	14.2169	14.5104	14.3578	-292.40	872.905	822.848	735.860	1514.83	1518.96	-1.74786	-1.1213	14.7427
6.369924	3.56245	3.58661	13.9063	14.2186	14.5160	14.3636	-292.50	873.981	822.848	736.167	1515.65	1519.79	-1.74786	-1.1213	14.7427
6.386138	3.55913	3.58773	13.9077	14.2186	14.5216	14.3636	-292.79	873.520	822.848	736.577	1516.26	1520.20	-1.3668	-1.1213	14.7427
6.411135	3.56849	3.59305	13.9063	14.2151	14.5216	14.3607	-292.15	873.367	823.772	737.499	1517.29	1521.44	-1.74786	-1.1213	14.7427
6.427689	3.57574	3.59950	13.9117	14.2011	14.5244	14.3520	-292.15	873.981	826.390	738.625	1518.93	1523.29	-1.74786	-1.1213	14.7427
6.444391	3.57574	3.60454	13.9117	14.2011	14.5327	14.3476	-292.15	873.981	827.160	739.854	1520.97	1525.56	-1.74786	-1.7399	14.7427
6.460715	3.57816	3.60622	13.9265	14.2081	14.5495	14.3461	-292.02	873.981	826.390	739.547	1520.36	1524.74	-1.74786	-1.1213	14.7427
6.476914	3.58178	3.60566	13.9104	14.2046	14.5495	14.3461	-292.15	873.367	824.850	739.035	1519.74	1524.74	-1.74786	-1.1213	14.7427
6.493612	3.58420	3.60454	13.9157	14.2081	14.5327	14.3520	-292.40	873.981	824.850	737.806	1518.93	1523.29	-1.3668	-1.1213	14.7427
6.509912	3.58420	3.60370	13.9588	14.2204	14.5048	14.3461	-292.63	873.981	825.928	738.625	1519.74	1524.74	-1.74786	-1.1213	14.7427
6.526132	3.58299	3.60454	13.9857	14.2204	14.4895	14.3461	-292.53	873.367	826.236	739.445	1520.36	1524.74	-1.74786	-1.7399	14.9478

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78

14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WLO2-2	WH20P-2	WH20C-2	PGOT	POJ	F-8	FCALB 31941B	PSIA
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32
	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49	
6.542451	3.58057	3.60202	14.0018	14.2151	14.4992	14.3520	-292.53	873.520
6.558661	3.58118	3.60006	14.0018	14.2081	14.5271	14.3593	-292.53	873.367
6.574878	3.58359	3.60202	13.9910	14.2151	14.5551	14.3666	-292.50	874.135
6.591657	3.57816	3.60202	13.9762	14.2186	14.5662	14.3666	-292.79	873.367
6.615622	3.57212	3.60006	14.0233	14.2204	14.5327	14.3578	-292.44	873.367
6.635886	3.57332	3.59754	14.0879	14.2204	14.5118	14.3549	-292.44	873.520
6.653815	3.57574	3.59726	14.1121	14.2081	14.5271	14.3593	-292.53	873.520
6.670013	3.58057	3.60342	14.0838	14.2151	14.5453	14.3636	-292.75	873.981
6.686247	3.58329	3.60790	14.0610	14.2204	14.5495	14.3578	-292.63	873.981
6.702559	3.58420	3.60790	14.0354	14.2204	14.5453	14.3549	-292.28	873.520
6.718769	3.58420	3.60566	14.0448	14.2029	14.5439	14.3636	-292.02	873.367
6.735465	3.57695	3.59726	14.0247	14.1959	14.5439	14.3709	-291.99	873.981
6.751755	3.57091	3.59333	14.0126	14.2011	14.5495	14.3753	-291.99	873.981
6.767968	3.57121	3.59445	14.0031	14.2099	14.5551	14.3695	-291.89	873.520
6.784276	3.57212	3.59585	14.0018	14.2204	14.5383	14.3520	-292.18	873.981
6.800490	3.57091	3.59445	13.9736	14.2204	14.5118	14.3461	-292.02	873.981
6.824633	3.57453	3.59221	13.9157	14.1959	14.5160	14.3520	-292.02	873.367
6.842533	3.58118	3.59557	13.8956	14.2011	14.5551	14.3636	-292.02	873.981
6.858743	3.58299	3.59922	13.9372	14.2169	14.5802	14.3753	-292.02	873.981
6.875423	3.58299	3.60202	13.9655	14.2291	14.5788	14.3797	-292.02	873.520
6.891725	3.58540	3.59754	13.9924	14.2379	14.5662	14.3782	-292.15	873.981
6.907941	3.59537	3.59361	14.0233	14.2431	14.5439	14.3695	-290.88	873.981
6.924271	3.60413	3.59557	14.0179	14.2379	14.5244	14.3520	-292.24	873.981
6.941491	3.60141	3.60006	13.9924	14.2361	14.5160	14.3520	-292.28	873.981
6.957698	3.59024	3.60006	13.9386	14.2291	14.5341	14.3549	-292.40	873.981
6.974477	3.58299	3.60006	13.9225	14.2204	14.5718	14.3695	-292.28	873.981
6.991689	3.57936	3.59669	13.9440	14.2361	14.5564	14.3753	-292.28	873.981
6.994400	3.57091	3.59109	13.9749	14.2466	14.5341	14.3695	-292.50	873.520
7.017855	3.55792	3.58409	13.9372	14.2169	14.5230	14.3753	-292.63	873.520
7.036370	3.56608	3.58997	13.9440	14.1941	14.5216	14.3841	-292.66	873.981
7.052683	3.57634	3.60006	13.9372	14.1749	14.5216	14.3987	-292.37	873.981
7.068897	3.58057	3.60454	13.9265	14.1732	14.5271	14.4074	-292.12	873.981
7.085113	3.57725	3.60118	13.9440	14.1871	14.5551	14.4104	-292.15	873.520
7.101898	3.57332	3.59669	13.9050	14.1976	14.5830	14.4074	-292.15	873.367
7.118118	3.57091	3.59221	13.8673	14.1959	14.5997	14.3958	-292.02	873.367
7.135322	3.57091	3.59333	13.8256	14.1819	14.6011	14.3870	-292.02	873.981
7.151617	3.56608	3.59557	13.8458	14.1819	14.5997	14.3753	-292.24	873.981
7.167844	3.55913	3.59585	13.9157	14.1941	14.5885	14.3607	-292.28	873.981
7.184536	3.56185	3.59726	13.9709	14.1906	14.5885	14.3695	-292.15	873.981
7.201843	3.57212	3.60174	13.9803	14.1906	14.5830	14.3797	-292.02	873.981
7.225465	3.58450	3.60482	14.0233	14.2291	14.5662	14.3826	-292.02	873.367
7.244360	3.58540	3.60342	13.9803	14.2361	14.5439	14.3768	-291.89	873.981
7.260573	3.57695	3.59614	13.9426	14.2361	14.5285	14.3695	-291.99	873.981
7.276801	3.56849	3.58913	13.9695	14.2291	14.5160	14.3636	-292.15	873.981
7.294566	3.56849	3.58997	14.0247	14.2291	14.5048	14.3520	-292.28	873.367
7.310780	3.57121	3.59277	14.0516	14.2361	14.5048	14.3520	-292.28	873.981
7.328479	3.57332	3.59557	14.0233	14.2291	14.5160	14.3520	-291.99	873.520
7.344776	3.57332	3.59557	13.9964	14.2186	14.5216	14.3490	-292.28	873.520
7.360983	3.57363	3.59557	13.9857	14.2011	14.5327	14.3549	-292.18	873.981

IRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102 CALIBRATION PERFORMED 08-31-78 14:44:37 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	WLQ2-1	WLQ2-2	WH20P-1	WH20P-2	WH20C-1	WH20C-2	TOFM	PGOT	POV	POJ	F-A	F-B	FCALA 31941A	PGFT
PARAMETER	LR-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	PSIA
UNITS	LR-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48
7.377747	3.57332	3.59669	14.0085	14.1906	14.5383	14.3651	-292.02	873.981	825.312	738.215	1520.97	1525.15	-.74786	-1.1213
7.394053	3.57453	3.60062	14.0018	14.1941	14.5327	14.3695	-291.99	873.981	824.850	737.806	1520.97	1525.15	-1.3668	-1.1213
7.411128	3.57332	3.60034	13.9641	14.2081	14.5104	14.3636	-292.02	873.367	824.234	737.089	1520.56	1524.94	-.74786	-1.1213
7.428455	3.56970	3.59894	13.9426	14.2029	14.4992	14.3636	-292.15	872.905	824.234	738.215	1521.38	1525.56	-.74786	-.91508

END FILE

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PFV-2	PSIA	PFJ	PH20-J	PC-1	POJI	TBL	TAO
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169	
-.181953	1440.95	1440.75	1442.33	14.7279	1115.99	1046.39	157.451	14.7044
-.165194	1440.95	1440.75	1442.17	14.9340	1115.78	1044.75	159.997	14.5991
-.148991	1440.49	1440.29	1442.17	14.7279	1115.78	1045.77	163.658	14.5991
-.132772	1440.34	1440.29	1442.02	14.7279	1115.78	1044.34	158.565	14.5991
-.116459	1440.34	1440.29	1442.02	14.5218	1115.78	1044.75	156.018	14.5991
-.100254	1440.34	1440.29	1442.02	14.5218	1115.58	1045.98	157.291	14.5991
-.083560	1440.34	1440.29	1442.02	14.9340	1115.58	1045.16	151.561	14.5991
-.067244	1440.34	1439.98	1442.17	14.8309	1115.58	1041.89	151.195	14.5991
-.051040	1440.34	1440.13	1442.02	14.7279	1115.58	1039.84	143.762	14.5991
-.034731	1440.34	1440.29	1442.02	14.7279	1115.58	1041.07	144.717	14.5991
-.018516	1440.34	1440.29	1442.02	14.7279	1115.58	1044.34	152.198	14.7044
-.004295	1440.49	1440.13	1442.02	14.7279	1115.58	1049.25	161.748	14.5751
.020147	1440.49	1440.13	1442.17	14.8309	1114.76	1046.39	151.084	14.7044
.037672	1440.65	1440.13	1442.33	14.5218	1115.58	1041.07	150.925	14.2832
.054455	1439.73	1439.67	1441.40	14.9340	1115.58	1042.71	152.835	14.7044
.070668	1436.06	1435.31	1437.68	16.0674	1114.58	1045.16	152.198	14.7044
.086892	1429.95	1430.02	1432.10	17.8191	1114.76	1042.30	147.105	14.7044
.103672	1423.22	1423.49	1425.91	19.4678	1114.76	1039.84	144.081	14.7044
.119875	1417.11	1417.12	1419.40	21.1164	1114.14	1041.89	154.108	14.9150
.136158	1410.97	1411.05	1413.05	22.6620	1114.55	1044.34	156.177	15.0202
.152397	1404.88	1405.14	1407.32	23.8985	1113.93	1044.34	154.745	15.0202
.168609	1398.91	1399.70	1401.74	25.1350	1114.34	1044.14	151.721	14.9150
.185304	1394.02	1394.41	1396.78	26.0624	1114.14	1045.16	152.994	15.0202
.202603	1392.04	1391.77	1394.31	27.1958	1114.14	1044.14	151.084	15.0202
.227228	1391.42	1390.99	1393.22	27.7110	1114.14	1040.25	144.558	15.0202
.245243	1392.04	1391.77	1393.84	28.3293	1113.93	1041.07	149.651	14.7044
.261379	1392.80	1392.86	1395.08	29.2566	1113.93	1044.14	154.745	15.0202
.278073	1393.11	1393.02	1395.55	28.9475	1113.93	1045.98	154.745	14.9150
.294378	1393.87	1394.10	1396.17	28.9475	1113.93	1044.14	147.264	14.9150
.310597	1394.48	1394.57	1396.78	29.5658	1113.93	1041.89	149.651	14.7044
.327297	1395.09	1395.19	1397.09	29.5658	1113.93	1041.48	150.925	14.8097
.343597	1395.70	1395.97	1397.71	29.7718	1113.93	1040.86	148.537	14.7044
.359812	1396.32	1396.13	1398.18	30.0810	1113.93	1040.86	152.198	15.0202
.376590	1396.93	1396.75	1398.80	30.0810	1113.93	1042.30	157.291	14.9150
.392801	1397.54	1397.37	1399.42	30.1840	1113.93	1044.96	159.361	14.8097
.409016	1397.69	1397.99	1399.88	30.1840	1113.93	1044.14	157.291	15.0202
.433055	1398.76	1398.77	1400.66	30.1840	1113.32	1044.14	158.724	14.9150
.452983	1399.07	1399.24	1401.28	30.4931	1113.11	1044.14	159.838	15.0202
.469195	1399.53	1399.70	1401.74	30.4931	1113.32	1042.30	156.814	14.8097
.485505	1399.98	1400.17	1402.21	30.0810	1113.32	1041.89	154.904	15.0202
.502716	1400.60	1400.63	1402.36	30.4931	1113.11	1041.89	149.651	14.8097
.520409	1400.60	1400.95	1402.52	30.5962	1113.11	1038.61	140.897	14.7044
.536726	1400.60	1400.95	1402.67	32.1418	1113.11	1039.23	144.558	15.0202
.552934	1400.14	1400.95	1402.36	35.1299	1113.11	1043.52	155.381	15.0202
.571244	1398.30	1399.08	1400.66	41.2093	1113.11	1045.16	156.018	14.7044
.587460	1376.75	1377.78	1341.17	130.752	1112.49	1043.12	159.201	14.9150
.604682	1346.48	1348.85	1070.40	487.581	1113.11	1041.89	163.021	23.7589
.622462	1341.44	1343.26	893.652	795.157	1112.29	1041.89	161.111	39.5517
.645923	1352.29	1352.43	883.893	942.299	1112.49	1042.30	164.931	62.1881
								67.9191
								398.214
								77.2124
								-260.13
								-125.76
								-53.057
								163.805

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN							
PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO								
JNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F							
VEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89							
	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169								
.666206	1357.18	1356.78	932.069	954.561	1112.49	1040.86	166.364	271.074	272.198	399.689	81.2085	-261.06	-227.83	-23.527	143.398
.683227	1357.79	1358.03	979.160	976.405	1112.49	1034.93	166.205	496.069	492.087	400.531	83.8889	-261.45	-253.06	-6.0820	126.294
.699442	1357.79	1357.87	1014.63	1002.89	1112.70	1033.50	165.568	592.405	589.057	401.058	84.6779	-262.25	-253.00	17.3043	106.724
.717136	1357.49	1357.41	1033.69	1020.61	1112.49	1036.98	165.568	608.514	607.976	401.795	83.8486	-262.25	-249.19	16.1453	106.333
.733439	1357.18	1357.41	1041.12	1028.85	1112.29	1040.86	161.748	601.459	602.497	402.217	82.5096	-261.72	-247.91	-22.254	144.369
.749671	1357.18	1356.94	1044.22	1031.94	1112.29	1038.61	157.291	594.826	595.570	402.322	81.5843	-261.65	-248.68	-62.380	162.269
.766439	1356.57	1356.94	1044.22	1032.36	1112.29	1037.59	158.087	592.826	593.089	402.743	81.1549	-262.18	-250.99	-17.498	137.836
.783650	1356.57	1356.78	1044.84	1032.36	1112.29	1036.77	156.177	594.089	594.330	403.059	80.8461	-261.19	-252.74	.980957	133.793
.799855	1356.11	1356.78	1044.37	1031.94	1112.29	1039.43	158.087	594.721	594.950	402.638	80.6849	-260.13	-256.19	12.9892	131.861
.816637	1356.11	1356.78	1044.22	1031.33	1112.29	1042.30	166.205	594.511	594.743	357.666	80.6983	-259.87	-257.24	-26.158	157.801
.832843	1355.96	1356.32	1043.60	1030.81	1112.29	1042.71	162.544	594.089	594.330	259.930	80.8461	-260.07	-257.50	-25.499	165.462
.856392	1355.96	1356.32	1042.52	1030.09	1112.29	1039.43	159.838	593.668	593.916	145.132	81.2354	-261.19	-259.01	32.8581	130.147
.874458	1355.96	1356.32	1042.36	1029.88	1112.29	1037.80	159.997	595.353	595.570	101.319	81.5306	-261.45	-258.88	30.0532	125.049
.891610	1355.96	1356.78	1042.36	1029.78	1112.29	1038.41	163.658	596.300	596.604	82.0453	81.4501	-260.66	-260.39	-4.1029	148.773
.908395	1356.11	1356.78	1042.52	1029.88	1112.29	1041.07	163.658	596.827	597.121	70.9867	81.4904	-260.53	-262.44	-22.293	172.762
.924603	1356.57	1356.78	1042.52	1029.78	1111.47	1039.43	162.385	596.406	596.708	63.8250	81.5440	-260.66	-262.18	-8.2561	167.911
.940826	1356.57	1356.94	1042.36	1029.57	1111.47	1036.77	161.111	595.563	595.880	59.856	81.7184	-260.40	-262.18	14.9854	160.638
.957597	1356.57	1356.94	1041.90	1028.85	1111.47	1039.23	165.727	595.353	595.467	55.7154	81.6514	-259.08	-262.44	37.4097	134.046
.973808	1357.18	1357.41	1041.74	1028.85	1111.47	1043.12	172.094	595.353	595.157	53.3983	81.6648	-260.66	-262.05	48.9515	126.263
.991156	1357.34	1357.56	1041.74	1028.65	1111.47	1042.30	170.184	595.774	595.570	51.3973	81.6245	-260.13	-261.65	34.2835	135.911
1.007339	1357.79	1357.87	1041.90	1028.85	1111.47	1038.61	167.478	595.774	595.570	50.0281	81.7050	-260.40	-262.24	64.7548	118.478
1.007556	1358.41	1358.18	1041.90	1028.75	1110.64	1037.59	169.547	595.774	595.570	48.4483	81.5440	-260.13	-264.03	54.9362	127.984
1.024265	1358.41	1358.49	1041.90	1028.75	1111.47	1039.43	175.436	596.406	595.984	46.6579	81.6111	-260.13	-264.57	35.1373	142.238
1.048772	1358.41	1358.65	1041.74	1028.44	1111.47	1039.23	174.163	594.195	594.123	44.2355	81.4904	-259.60	-264.63	37.9767	139.127
1.067777	1358.41	1358.81	1041.28	1028.34	1111.47	1038.61	173.844	595.142	595.053	42.8664	81.5843	-260.13	-265.96	84.6130	128.238
1.084540	1358.41	1358.81	1041.28	1028.34	1111.05	1040.86	175.914	596.195	595.777	41.6026	81.6245	-260.07	-266.50	72.5248	131.004
1.100747	1358.41	1358.81	1041.28	1028.34	1110.85	1039.84	177.187	596.406	596.294	40.3387	81.5574	-259.47	-266.70	33.7136	142.363
1.116972	1358.41	1358.81	1041.28	1028.34	1110.64	1039.84	175.754	597.037	596.604	39.4962	81.3293	-259.34	-267.03	26.9299	148.523
1.133748	1358.41	1358.81	1041.28	1027.93	1110.64	1035.75	173.844	595.879	595.467	38.9696	81.1281	-259.08	-267.50	9.16658	153.250
1.149964	1358.41	1358.65	1041.12	1027.31	1110.64	1035.34	171.616	595.353	594.743	38.6536	81.1281	-259.60	-267.03	19.9819	153.002
1.166191	1358.41	1358.65	1041.12	1027.00	1110.85	1037.59	166.523	594.616	594.226	38.2323	81.1682	-260.13	-266.76	69.0920	124.794
1.183506	1358.41	1358.65	1040.04	1026.69	1110.85	1037.59	161.111	594.511	593.916	38.2323	81.2219	-260.86	-267.03	95.9045	102.772
1.199715	1357.79	1358.03	1039.88	1026.28	1110.64	1037.80	159.997	594.826	594.330	37.8111	81.1146	-260.92	-267.43	103.395	96.2985
1.216400	1357.49	1357.56	1039.42	1025.56	1110.64	1039.43	162.385	595.353	594.640	37.2845	81.0743	-259.08	-267.23	57.6010	128.589
1.232695	1357.79	1357.87	1039.26	1025.35	1110.64	1038.41	157.451	595.353	594.640	37.2845	81.0072	-259.87	-267.83	58.5332	130.115
1.258124	1357.18	1357.56	1038.80	1025.14	1110.64	1033.50	150.288	595.037	594.640	37.0738	80.8594	-259.60	-269.17	33.0365	161.438
1.275390	1357.34	1357.56	1038.64	1024.94	1110.64	1034.32	151.721	595.353	594.640	37.0738	80.9535	-259.60	-268.90	24.0690	159.775
1.291601	1357.79	1357.72	1038.64	1024.63	1110.64	1040.86	163.658	595.353	594.640	37.0738	80.7252	-259.54	-268.57	31.2190	152.133
1.307820	1357.79	1357.56	1038.18	1024.63	1110.64	1044.14	170.184	595.353	594.640	37.0738	80.8461	-259.08	-268.57	42.4980	146.964
1.324597	1357.79	1357.72	1038.18	1024.63	1110.64	1040.86	167.637	595.774	595.053	37.0738	80.6849	-259.54	-268.90	69.8069	133.192
1.340808	1357.79	1357.87	1038.18	1024.73	1110.64	1036.77	164.295	596.827	596.294	37.0738	80.7521	-259.87	-269.23	90.9080	113.704
1.357163	1357.79	1358.03	1038.64	1024.73	1110.64	1035.75	162.385	597.459	596.397	37.2845	80.6983	-260.13	-269.44	96.9596	103.688
1.373337	1358.41	1358.34	1038.64	1024.63	1110.64	1037.59	166.364	596.195	595.570	37.2845	80.7252	-260.13	-269.70	100.249	99.6232
1.389544	1358.41	1358.65	1038.64	1024.32	1110.64	1041.07	170.661	596.195	595.570	37.2845	80.6312	-260.13	-270.17	98.6386	108.385
1.407246	1358.41	1358.65	1038.18	1024.63	1110.64	1040.86	164.931	596.300	595.467	37.0738	80.5371	-259.87	-270.58	92.2013	116.126
1.423547	1358.41	1358.65	1038.02	1024.22	1110.64	1037.59	163.021	595.985	595.157	37.0738	80.5371	-259.34	-270.17	61.1859	133.065
1.439754	1358.41	1358.81	1038.02	1023.91	1109.82	1034.32	160.475	595.774	594.743	36.9685	80.4699	-258.82	-269.97	54.2427	139.221
1.463272	1358.41	1358.81	1037.40	1023.49	1110.64	1034.52	154.904	595.353	594.640	36.9685	80.3624	-258.82	-271.04	59.7744	129.225
1.480898	1358.41	1359.27	1037.40	1023.49	1110.64	1035.75	156.018	595.879	595.053	36.9685	80.4834	-258.55	-271.31	54.3814	131.987

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78

14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN							
PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO								
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F							
NEEF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89							
	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169								
1.497504	1358.41	1358.81	1037.40	1023.49	1109.82	1037.80	163.658	596.300	595.467	36.9685	80.3759	-258.49	-271.31	75.0985	122.875
1.513805	1358.41	1359.27	1037.40	1023.49	1109.82	1038.82	161.111	596.406	595.570	36.9685	80.4162	-258.03	-271.58	84.7467	116.481
1.530028	1358.41	1358.81	1037.09	1023.08	1109.82	1036.16	157.928	596.406	595.570	36.9685	80.4162	-257.70	-271.51	59.2230	124.378
1.546334	1358.41	1358.81	1036.94	1023.08	1109.82	1034.32	155.381	596.090	595.467	36.9685	80.2684	-257.50	-271.51	56.0447	121.144
1.562541	1358.41	1358.65	1036.94	1023.08	1109.82	1036.16	158.724	596.511	595.984	36.9685	80.2012	-258.03	-271.85	71.5406	113.057
1.578763	1358.41	1359.27	1037.40	1023.39	1109.20	1040.05	161.748	597.143	596.708	36.9685	80.2012	-258.95	-272.32	81.1625	112.409
1.595539	1359.02	1359.27	1037.40	1023.49	1109.41	1039.23	164.931	597.037	596.397	36.9685	80.2012	-259.08	-272.39	101.692	102.673
1.611748	1359.02	1359.27	1037.40	1023.49	1109.20	1035.34	166.364	596.722	596.397	36.9685	80.2012	-258.22	-272.12	99.8547	107.180
1.628448	1359.02	1359.27	1037.09	1023.08	1109.20	1036.16	167.637	596.195	595.880	36.7579	80.1206	-258.35	-272.79	109.426	102.837
1.644746	1358.71	1359.27	1036.78	1022.98	1109.00	1039.43	170.025	595.774	595.467	36.7579	80.0534	-257.76	-272.86	103.264	111.664
1.668163	1358.41	1359.27	1036.78	1022.98	1109.20	1038.41	166.841	596.300	596.397	36.6525	79.9459	-256.98	-273.13	80.2222	116.159
1.687605	1358.41	1358.81	1036.94	1022.98	1109.00	1032.89	154.267	596.511	596.397	36.6525	79.9459	-256.91	-273.20	76.1799	116.707
1.704913	1358.41	1358.81	1036.78	1022.57	1109.00	1029.20	151.561	596.195	595.984	36.5472	79.9862	-256.19	-272.86	40.2760	150.983
1.721117	1358.41	1358.65	1036.47	1021.95	1109.20	1034.32	153.471	595.353	595.467	36.6525	79.9189	-255.93	-272.86	85.2814	131.766
1.737449	1358.41	1358.34	1036.32	1021.95	1109.00	1040.86	165.090	595.458	595.467	36.6525	79.8248	-255.41	-273.20	113.058	115.642
1.753636	1357.95	1358.18	1036.17	1022.05	1109.00	1041.48	164.295	596.300	596.397	36.5472	79.7711	-254.56	-273.80	103.035	123.515
1.770855	1358.41	1358.18	1036.17	1022.26	1109.00	1038.61	164.931	596.616	596.604	35.293	79.7711	-254.11	-273.47	103.002	117.995
1.787632	1359.94	1360.36	1036.94	1022.67	1109.00	1035.34	159.838	596.511	596.604	25.1727	79.5693	-253.33	-273.60	87.1499	129.606
1.803822	1364.52	1364.40	1038.02	1023.70	1109.00	1032.68	151.561	596.511	596.708	16.9578	79.6769	-252.81	-273.94	84.6465	130.019
1.820172	1368.80	1368.76	1040.04	1026.28	1109.00	1032.68	156.018	597.459	597.535	13.7982	80.1609	-252.29	-273.74	97.5196	114.609
1.836390	1371.86	1371.71	1041.90	1028.03	1109.00	1037.80	163.021	598.301	598.362	13.4822	80.2147	-252.55	-273.80	98.0464	107.799
1.852604	1373.08	1373.58	1043.76	1029.57	1109.00	1037.59	159.838	598.511	598.465	13.9035	80.4162	-251.77	-273.94	80.7596	124.283
1.875670	1372.47	1372.64	1044.99	1030.50	1109.00	1034.52	159.361	599.775	599.602	14.3248	80.4699	-251.51	-274.21	79.6843	118.092
1.894368	1371.25	1371.87	1044.84	1030.40	1109.00	1035.75	156.018	599.564	598.982	14.3248	80.2147	-250.67	-274.48	49.6497	115.804
1.910432	1370.64	1371.09	1044.84	1029.99	1109.00	1035.34	153.949	599.248	598.775	14.6408	80.1071	-250.16	-273.67	57.1517	131.639
1.926731	1369.41	1370.00	1044.22	1029.57	1109.00	1035.14	158.565	599.564	598.879	14.6408	79.7711	-249.45	-272.05	75.4705	152.568
1.942951	1368.95	1369.53	1043.76	1029.27	1109.00	1035.96	161.111	599.564	599.189	14.6408	79.7845	-250.48	-273.67	101.200	131.258
1.959659	1368.50	1368.76	1043.60	1029.16	1109.00	1036.77	162.544	599.670	599.292	14.6408	79.7845	-251.00	-274.48	109.784	108.287
1.975954	1368.19	1368.60	1043.60	1028.75	1109.00	1036.16	159.201	599.143	598.879	14.4301	79.7711	-250.67	-274.28	96.4321	111.762
1.992173	1367.58	1367.82	1043.14	1028.65	1109.00	1035.14	158.565	598.722	598.465	14.3248	79.6769	-250.22	-274.21	109.264	109.555
2.003478	1367.12	1367.51	1042.52	1028.44	1109.00	1036.77	164.295	598.722	598.465	14.3248	79.5828	-250.16	-275.34	93.2609	127.092
2.020697	1366.97	1366.89	1042.36	1027.93	1109.00	1037.59	170.025	598.827	598.465	14.3248	79.2330	-248.68	-274.88	72.4909	138.875
2.036914	1365.90	1366.89	1042.36	1027.93	1108.17	1037.80	166.841	599.564	599.292	14.6408	79.0715	-248.55	-274.88	66.7726	146.932
2.053700	1365.74	1366.27	1042.36	1027.93	1109.00	1037.59	165.409	599.564	599.085	14.6408	79.0715	-248.62	-274.88	57.8773	153.095
2.077153	1365.13	1365.34	1041.74	1027.41	1109.00	1034.52	157.291	599.143	598.879	14.6408	78.9639	-249.20	-276.44	101.758	123.483
2.096694	1364.67	1365.18	1041.28	1027.10	1107.97	1031.25	154.745	599.880	599.292	14.6408	78.8024	-248.94	-275.96	90.6425	128.716
2.114374	1364.52	1365.03	1041.12	1026.79	1107.56	1032.89	158.565	599.248	598.879	14.6408	78.7620	-248.55	-275.89	55.9755	140.762
2.130591	1364.52	1364.40	1041.12	1026.38	1109.00	1036.16	163.180	599.143	598.052	14.3248	78.6946	-247.66	-275.07	73.1690	139.851
2.147270	1363.91	1364.25	1041.12	1025.86	1107.56	1039.43	167.478	598.827	598.362	14.6408	78.5735	-246.89	-274.88	65.9525	151.947
2.163587	1363.45	1364.25	1040.50	1025.86	1107.56	1039.43	165.568	599.143	598.465	14.6408	78.7081	-247.15	-275.07	63.3497	151.263
2.179789	1363.30	1363.78	1040.04	1025.56	1107.76	1035.75	157.291	598.722	598.362	14.3248	78.6409	-247.59	-275.34	68.9557	146.870
2.198478	1363.30	1363.63	1039.88	1025.35	1107.35	1031.25	153.631	598.090	597.948	14.4301	78.6005	-247.59	-275.96	68.1718	125.912
2.215781	1362.69	1363.16	1039.42	1024.73	1107.56	1032.07	156.655	597.880	597.948	14.6408	78.4793	-247.08	-275.34	58.3951	124.634
2.232001	1362.23	1363.00	1039.42	1024.63	1107.76	1035.75	166.841	599.143	598.775	14.6408	78.6005	-247.15	-275.34	80.2222	120.406
2.248308	1362.08	1362.69	1039.26	1024.73	1107.56	1037.59	171.934	599.775	599.292	14.6408	78.4927	-247.40	-275.82	84.2117	121.850
2.264518	1362.08	1362.54	1039.26	1024.73	1109.00	1039.23	173.844	599.564	599.189	14.6408	78.3581	-247.15	-275.62	88.3157	123.675
2.288007	1361.62	1362.54	1038.95	1024.22	1107.35	1038.41	165.090	599.143	598.775	14.6408	78.2233	-246.89	-276.09	83.8103	136.921
2.306496	1361.62	1362.38	1038.80	1024.32	1107.56	1031.86	152.357	599.143	598.362	14.6408	78.2099	-246.89	-276.16	78.3382	132.146
2.322726	1362.08	1362.38	1038.95	1024.22	1107.56	1028.59	148.378	599.143	598.775	14.6408	78.3176	-247.08	-276.16	85.0809	122.170



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
2.339420	1361.62	1362.38	1038.64	1024.22	1107.56	1031.05	150.925	599.143
2.355720	1361.46	1362.38	1038.64	1024.11	1107.56	1035.14	163.021	598.722
2.371882	1361.46	1362.38	1038.64	1023.80	1107.35	1040.05	171.298	598.722
2.388667	1361.62	1362.38	1038.64	1023.80	1107.35	1040.05	170.025	599.143
2.404879	1362.08	1362.07	1038.64	1023.91	1107.35	1035.34	166.841	599.248
2.421090	1361.46	1363.31	1038.33	1023.91	1107.35	1034.32	159.838	599.880
2.437868	1361.46	1362.38	1038.80	1024.32	1107.35	1033.50	152.198	600.407
2.454082	1361.46	1362.38	1039.26	1024.22	1107.35	1032.27	157.291	599.985
2.470308	1361.46	1362.38	1038.80	1024.22	1107.35	1035.14	166.364	599.143
2.495354	1361.46	1362.38	1038.64	1023.91	1107.35	1038.41	168.751	599.564
2.513421	1361.46	1362.38	1038.64	1023.91	1107.35	1032.89	159.201	599.248
2.530959	1361.46	1362.38	1038.18	1023.91	1107.35	1031.05	161.111	598.722
2.547261	1362.08	1362.38	1037.87	1023.60	1107.35	1032.89	158.565	598.406
2.563472	1362.08	1362.38	1038.02	1023.70	1107.35	1035.34	160.475	598.406
2.582160	1361.62	1362.54	1038.02	1023.49	1107.35	1037.59	165.090	598.090
2.598457	1362.08	1362.38	1037.71	1023.39	1107.35	1035.96	163.021	598.722
2.614686	1362.08	1362.38	1038.02	1023.70	1107.35	1035.14	167.000	599.564
2.631449	1362.08	1362.38	1038.33	1023.80	1106.73	1033.50	161.748	599.564
2.647653	1360.39	1362.38	1038.64	1023.80	1107.35	1031.05	154.267	599.564
2.663866	1361.46	1362.38	1038.64	1023.80	1107.35	1031.05	157.769	599.564
2.680643	1361.46	1362.38	1038.80	1023.80	1106.53	1033.50	161.270	599.985
2.705614	1361.46	1362.38	1038.80	1024.22	1106.53	1032.68	155.541	599.985
2.723262	1361.46	1362.54	1038.64	1023.91	1106.53	1032.68	152.198	599.775
2.739571	1362.08	1362.38	1038.64	1023.80	1106.53	1035.75	160.634	599.564
2.755782	1361.62	1362.54	1038.64	1023.80	1106.53	1037.59	162.544	599.354
2.772481	1361.62	1362.38	1038.64	1023.49	1106.53	1032.89	156.336	598.722
2.788791	1362.08	1362.38	1038.02	1023.49	1106.53	1031.05	156.018	598.196
2.806012	1361.46	1362.54	1038.02	1023.39	1106.32	1035.14	165.727	598.722
2.822332	1362.08	1362.38	1037.71	1022.98	1106.53	1039.23	173.844	599.143
2.838541	1361.46	1362.69	1037.87	1023.08	1106.53	1037.59	166.364	599.354
2.854757	1361.62	1362.69	1038.18	1023.49	1106.53	1032.07	156.814	599.880
2.873067	1361.62	1362.54	1038.64	1023.49	1106.53	1028.59	154.904	600.091
2.889761	1362.08	1362.38	1038.64	1023.49	1106.53	1032.07	161.111	599.564
2.912846	1362.08	1362.38	1038.64	1023.80	1106.53	1036.16	164.931	599.564
2.931854	1362.08	1362.69	1038.64	1023.70	1106.53	1034.32	170.025	600.091
2.948074	1362.08	1362.85	1038.64	1023.80	1105.91	1033.50	170.343	599.775
2.966860	1362.08	1362.69	1038.33	1023.60	1105.91	1034.32	169.547	599.564
2.983062	1362.08	1362.54	1038.64	1023.60	1105.91	1035.34	171.934	599.985
1.999297	1362.08	1362.54	1038.64	1023.60	1106.12	1035.14	169.388	600.091
-14396.998	1361.46	1362.54	1038.64	1023.60	1106.12	1032.89	165.090	600.407
-14396.982	1362.08	1362.38	1038.64	1023.80	1105.91	1032.07	164.931	600.407
-14396.966	1361.62	1362.69	1038.80	1024.22	1105.91	1032.68	165.409	599.985
-14396.949	1362.08	1362.38	1038.64	1023.80	1105.71	1033.50	166.205	599.564
-14396.932	1362.08	1362.54	1038.18	1023.80	1105.71	1034.52	171.298	599.143
-14396.916	1362.08	1362.54	1038.02	1023.49	1105.91	1035.75	176.391	599.670
-14396.892	1362.08	1362.38	1038.64	1023.39	1105.91	1035.14	173.208	599.143
-14396.873	1362.08	1362.54	1038.02	1023.08	1105.91	1032.07	166.841	598.722
-14396.857	1362.08	1362.69	1038.02	1023.39	1105.91	1031.05	170.025	599.564
-14396.840	1362.08	1362.54	1038.02	1023.39	1105.71	1032.89	168.751	598.933



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78

14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFV-2	PFVD	PFJ	PGH20T	PH20-J	PH20-OUT	PC-1	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160
-14396.824	1362.08	1362.54	1037.56	1023.08	1105.71	1035.14	163.658	598.196	598.052	14.4301	76.5378	-248.94
-14396.807	1362.08	1362.69	1037.71	1022.98	1105.71	1032.07	155.381	599.143	598.775	14.4301	76.6053	-250.48
-14396.790	1362.08	1362.54	1038.18	1023.29	1105.91	1029.20	156.177	599.564	599.292	14.6408	76.4163	-249.97
-14396.773	1361.46	1362.38	1038.02	1023.29	1105.71	1032.68	163.658	599.564	599.189	14.3248	76.3759	-248.68
-14396.756	1361.46	1362.69	1037.87	1022.98	1105.71	1038.41	168.910	599.143	598.775	14.6408	76.2274	-249.71
-14396.740	1362.08	1362.54	1037.56	1023.08	1105.71	1036.77	161.111	598.406	598.052	14.6408	76.1733	-253.33
-14396.724	1362.08	1362.54	1037.71	1022.98	1105.71	1031.05	159.838	598.933	598.775	14.6408	75.8896	-255.15
-14396.706	1362.08	1361.92	1037.87	1023.49	1105.71	1031.86	165.090	599.775	599.292	14.6408	76.1058	-254.63
-14396.683	1362.08	1362.38	1038.02	1023.70	1105.71	1035.14	161.111	599.985	600.016	14.2195	76.3218	-253.65
-14396.664	1362.08	1362.69	1038.18	1023.49	1105.71	1031.25	156.018	599.775	599.602	14.3248	76.0518	-252.29
-14396.648	1362.08	1362.54	1038.33	1023.39	1105.71	1031.86	153.471	599.880	599.602	14.3248	75.8896	-254.37
-14396.631	1362.08	1362.54	1038.64	1023.39	1105.71	1032.68	152.198	599.985	599.706	14.6408	75.8356	-256.19
-14396.615	1362.08	1362.54	1038.64	1023.39	1105.71	1032.89	154.745	599.985	599.706	14.6408	75.8896	-258.03
-14396.599	1362.08	1362.69	1038.64	1023.39	1105.71	1034.32	158.724	599.670	599.602	14.3248	75.8896	-259.01
-14396.583	1362.08	1362.69	1038.02	1023.08	1105.71	1032.89	159.838	598.722	598.362	14.2195	75.8356	-260.53
-14396.566	1362.08	1362.54	1037.56	1022.98	1105.71	1032.68	161.270	598.722	598.362	14.3248	75.7681	-260.40
-14396.550	1362.08	1362.69	1037.56	1023.08	1105.71	1034.32	162.703	598.722	598.052	14.6408	76.0518	-260.13
-14396.533	1362.08	1362.54	1037.56	1023.08	1105.71	1035.75	166.841	599.564	599.292	14.6408	75.8896	-261.19
-14396.517	1362.08	1362.54	1038.02	1023.60	1105.71	1035.55	165.568	600.407	600.119	14.6408	75.7951	-265.43
-14396.501	1362.08	1362.54	1038.18	1023.60	1105.71	1032.89	163.021	600.407	600.016	14.6408	75.6735	-269.44
-14396.478	1362.08	1362.38	1038.02	1023.49	1105.71	1030.23	159.838	599.775	599.602	14.4301	75.5383	-271.05
-14396.459	1362.08	1362.69	1038.02	1023.39	1105.71	1030.23	159.361	599.143	598.775	14.3248	75.4708	-269.71
-14396.442	1362.08	1362.54	1037.87	1022.98	1105.71	1032.68	163.817	599.564	599.085	14.6408	75.5519	-268.57
-14396.425	1362.08	1362.38	1038.02	1023.39	1105.71	1035.34	169.388	600.091	600.016	14.2195	75.3086	-269.17
-14396.409	1362.08	1362.69	1038.18	1023.49	1105.71	1036.77	164.931	600.196	600.016	14.3248	75.3221	-270.78
-14396.392	1362.08	1362.69	1038.49	1023.49	1104.88	1032.89	164.295	599.670	599.602	14.4301	75.2951	-271.85
-14396.375	1362.23	1363.00	1038.02	1023.49	1105.71	1031.86	163.817	598.827	598.465	14.3248	75.3221	-272.93
-14396.359	1362.08	1362.85	1038.02	1022.98	1104.88	1032.68	166.205	598.722	598.362	14.3248	75.3221	-272.32
-14396.342	1362.08	1362.69	1038.02	1022.98	1104.88	1035.75	166.523	598.406	598.155	14.3248	75.3627	-271.85
-14396.326	1362.08	1362.85	1038.02	1022.98	1104.88	1035.75	164.931	599.564	598.879	14.4301	75.4032	-272.66
-14396.308	1362.08	1362.69	1038.02	1023.39	1105.71	1031.86	160.952	599.985	599.912	14.3248	75.3221	-273.20
-14396.291	1362.23	1363.00	1038.18	1023.49	1105.71	1031.05	166.841	600.407	600.429	14.4301	75.4167	-273.47
-14396.264	1362.23	1362.85	1038.64	1023.49	1105.71	1032.68	163.021	599.775	599.602	14.4301	75.2005	-275.62
-14396.248	1362.69	1362.85	1038.18	1023.70	1104.88	1030.23	154.745	599.564	598.879	14.6408	74.9300	-274.21
-14396.231	1362.23	1363.00	1038.18	1023.49	1105.71	1029.20	154.267	599.564	599.292	14.6408	74.9300	-274.55
-14396.215	1362.23	1363.00	1038.18	1023.60	1104.88	1031.05	149.651	600.407	599.912	14.6408	74.8218	-274.55
-14396.198	1362.23	1363.00	1038.18	1023.80	1105.71	1032.27	154.267	600.196	599.706	14.6408	75.0381	-275.07
-14396.182	1362.23	1363.00	1038.64	1023.49	1104.88	1034.32	163.658	599.880	599.602	14.4301	74.8624	-274.01
-14396.166	1362.69	1362.85	1038.64	1023.60	1104.88	1034.32	170.184	600.091	600.119	14.6408	74.8083	-274.55
-14396.149	1362.69	1362.85	1038.64	1023.91	1104.88	1036.16	173.208	600.407	599.706	14.3248	74.8894	-274.82
-14396.133	1362.69	1363.00	1038.64	1023.49	1104.88	1035.96	168.751	599.248	599.189	14.3248	74.8894	-273.20
-14396.117	1362.23	1363.00	1038.33	1023.08	1104.88	1032.68	161.270	598.722	598.465	14.3248	74.8083	-273.47
-14396.101	1362.38	1363.00	1038.02	1023.08	1104.88	1027.77	154.108	598.406	598.258	14.6408	74.6459	-274.55
-14396.084	1362.53	1363.00	1038.02	1023.08	1104.88	1027.77	150.925	598.722	598.465	14.3248	74.7136	-275.07
-14396.060	1362.23	1363.00	1038.02	1023.19	1104.88	1031.25	150.925	598.827	598.465	14.2195	74.7271	-275.82
-14396.043	1362.69	1363.16	1038.02	1023.49	1104.88	1031.86	149.174	599.880	599.602	14.3248	74.5918	-275.82
-14396.027	1362.38	1363.00	1038.18	1023.60	1104.88	1034.32	157.291	599.775	599.602	14.3248	74.6053	-275.62
-14396.011	1362.23	1363.00	1038.18	1023.39	1104.47	1034.52	160.793	599.248	598.982	14.3248	74.5377	-274.82
3.998657	1362.23	1363.16	1038.02	1023.39	1104.27	1033.50	158.565	599.143	598.879	14.6408	74.3348	-274.82

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFVD	PGH2OT	PH20-OUT	PC-1	PC-2	TFJ	TBL	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93
	59/157	60/160	61/161	62/168	63/169					
4.015338	1362.69	1363.00	1038.33	1022.98	1104.88	1031.05	160.475	599.248	599.189	14.6408
4.032631	1362.69	1362.69	1038.64	1023.19	1104.88	1033.50	166.205	600.196	600.119	14.6408
4.048859	1362.38	1362.69	1038.64	1023.49	1104.47	1036.16	169.070	600.828	600.843	14.6408
4.066643	1362.69	1363.00	1038.80	1023.91	1104.47	1035.34	164.931	601.249	600.946	14.4301
4.082857	1362.69	1363.16	1038.80	1024.22	1104.88	1032.89	162.385	600.828	600.843	14.4301
4.099071	1362.38	1363.16	1038.80	1023.91	1104.88	1031.25	162.385	600.091	599.706	14.3248
4.116843	1362.23	1363.63	1038.64	1023.39	1104.88	1031.05	157.451	599.564	599.292	14.3248
4.140283	1362.69	1363.63	1038.64	1023.39	1104.27	1031.05	165.090	600.512	600.119	14.3248
4.159254	1363.30	1363.63	1038.80	1024.22	1104.27	1034.32	173.049	601.038	600.739	14.6408
4.176559	1363.30	1363.76	1038.80	1024.22	1104.27	1034.52	173.844	600.407	600.119	14.6408
4.192772	1363.30	1363.78	1038.64	1023.91	1104.27	1034.32	167.796	599.985	599.602	14.4301
4.209461	1363.30	1363.78	1038.64	1024.22	1104.47	1031.05	156.973	599.880	599.706	14.6408
4.225764	1363.30	1363.78	1038.80	1023.91	1104.27	1029.00	154.267	600.407	600.016	14.3248
4.241971	1363.30	1363.78	1038.80	1023.91	1104.88	1030.23	152.357	600.512	600.119	14.3248
4.258287	1363.30	1363.78	1039.26	1024.22	1104.47	1031.05	150.288	600.617	600.429	14.3248
4.274476	1363.30	1363.78	1039.26	1023.91	1104.06	1031.86	150.606	600.407	600.016	14.2195
4.290694	1363.30	1363.78	1039.26	1023.91	1104.27	1032.68	153.790	600.407	600.016	14.2195
4.308464	1362.69	1363.63	1039.26	1023.80	1104.27	1033.50	157.291	600.091	600.016	14.2195
4.324654	1362.69	1363.63	1038.95	1023.70	1104.27	1032.68	157.451	601.038	600.843	14.2195
4.347684	1362.69	1363.63	1038.95	1023.91	1104.06	1032.68	159.838	599.880	599.602	14.3248
4.366172	1363.30	1363.63	1038.80	1023.80	1104.06	1032.68	158.565	599.564	598.982	14.3248
4.382389	1362.84	1363.63	1038.64	1023.49	1104.06	1032.89	161.111	599.880	599.602	14.3248
4.399170	1362.84	1363.16	1038.64	1023.91	1104.06	1031.05	154.745	600.933	600.843	14.3248
4.415388	1363.30	1363.63	1039.26	1024.32	1104.06	1029.20	154.108	601.249	601.050	14.2195
4.431613	1363.30	1363.63	1039.26	1024.63	1104.06	1032.68	163.658	600.407	600.016	14.3248
4.449371	1363.30	1363.63	1038.80	1024.22	1104.27	1033.50	164.295	599.143	599.085	14.6408
4.465592	1363.30	1363.63	1038.64	1023.80	1104.06	1032.89	164.931	599.143	598.879	14.6408
4.482292	1363.30	1363.78	1038.64	1023.49	1104.06	1031.05	162.544	599.564	599.085	14.4301
4.498588	1363.30	1363.63	1038.80	1023.80	1104.06	1029.61	157.291	599.985	599.912	14.2195
4.514797	1363.30	1363.63	1039.26	1024.22	1104.06	1029.20	156.655	599.775	599.706	14.6408
4.532488	1363.30	1363.63	1039.26	1024.22	1104.06	1031.86	154.745	600.407	600.223	14.3248
4.556508	1363.30	1363.78	1039.26	1024.63	1104.06	1035.14	166.205	599.985	600.016	14.3248
4.575463	1363.45	1363.94	1039.26	1024.63	1104.06	1033.50	161.430	600.828	600.429	14.6408
4.592144	1363.45	1364.25	1039.42	1024.63	1104.06	1031.05	166.205	600.512	600.429	14.6408
4.608438	1363.45	1364.25	1039.42	1024.63	1104.06	1031.25	170.025	600.407	600.016	14.3248
4.624665	1363.30	1363.94	1039.26	1024.32	1104.06	1032.07	168.115	600.407	600.119	14.3248
4.641448	1363.30	1363.94	1039.42	1024.63	1104.06	1032.68	166.682	600.828	600.533	14.3248
4.658650	1363.30	1363.63	1039.88	1024.63	1104.06	1032.07	166.841	600.407	600.739	14.2195
4.674862	1363.30	1363.78	1039.88	1024.63	1104.06	1030.23	162.385	600.407	600.119	14.2195
4.691648	1363.30	1363.63	1039.88	1024.63	1104.06	1031.25	167.796	599.985	599.912	14.2195
4.707865	1363.30	1363.78	1039.42	1024.63	1104.06	1031.86	165.250	599.985	599.706	14.3248
4.724734	1363.30	1363.63	1039.42	1024.63	1104.06	1032.68	165.568	600.407	600.119	14.3248
4.742388	1363.30	1363.94	1039.57	1024.22	1104.06	1032.68	166.364	600.407	600.119	14.2195
4.766000	1363.30	1363.78	1039.42	1024.63	1104.06	1029.61	162.544	600.407	600.119	14.2195
4.785212	1363.45	1364.25	1039.42	1024.63	1104.06	1031.25	168.751	600.091	599.706	14.3248
4.801346	1363.45	1364.25	1039.42	1024.63	1104.06	1032.68	163.658	599.985	599.602	14.3248
4.817563	1363.91	1364.25	1039.42	1024.63	1104.06	1031.05	161.111	599.985	599.602	14.3248
4.834341	1363.45	1364.25	1039.57	1024.22	1104.06	1031.05	158.565	599.880	599.706	14.3248
4.851551	1363.60	1364.25	1039.57	1024.63	1103.44	1030.23	161.111	600.196	600.016	14.2195

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78

14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-1	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92
4.867779	1363.45	1364.25	1039.57	1024.63	1104.06	1031.25	162.385	599.985	599.706
4.884559	1363.91	1364.25	1039.42	1024.63	1104.06	1034.32	166.364	599.564	598.879
4.900772	1363.91	1364.25	1039.26	1024.32	1103.44	1035.34	168.751	599.564	599.085
4.918475	1363.45	1364.25	1039.42	1024.32	1104.06	1034.32	171.934	599.985	599.706
4.934762	1363.45	1364.25	1039.88	1024.73	1104.06	1032.68	169.547	600.091	599.706
4.951979	1363.91	1364.25	1039.88	1025.04	1104.06	1031.05	167.000	600.407	600.119
4.975044	1363.91	1364.25	1039.88	1025.35	1104.06	1031.25	168.910	600.407	600.223
3.994183	1363.91	1364.25	1040.04	1025.04	1104.06	1032.68	167.000	599.880	599.602
-55.005703	1363.45	1364.40	1039.88	1024.73	1104.06	1029.20	157.928	599.459	599.085
-54.989386	1363.45	1364.25	1039.42	1024.63	1104.06	1027.77	157.928	599.143	598.775
-54.973174	1363.91	1364.25	1039.42	1024.63	1103.24	1029.20	157.451	599.564	598.982
-54.956491	1363.91	1364.25	1039.26	1024.63	1104.06	1032.07	157.451	600.407	600.016
-54.940193	1363.45	1364.25	1039.88	1025.04	1104.06	1032.89	159.838	600.407	600.429
-54.923959	1363.91	1364.25	1040.04	1025.14	1104.06	1033.50	164.295	600.512	600.429
-54.907658	1364.06	1364.40	1039.88	1025.14	1104.06	1032.07	163.021	599.985	599.706
-54.891447	1363.91	1364.25	1039.88	1025.04	1103.24	1032.68	162.703	599.985	599.706
-54.875218	1363.91	1364.25	1039.88	1025.04	1103.24	1031.25	161.907	599.985	600.016
-54.858459	1363.91	1364.25	1039.88	1025.04	1104.06	1029.61	156.655	599.775	599.912
-54.832673	1364.06	1364.25	1040.04	1025.04	1103.44	1028.59	152.516	599.564	599.189
-54.816095	1364.52	1364.56	1039.88	1025.25	1103.24	1030.02	153.631	599.985	599.706
-54.798798	1363.91	1364.87	1040.04	1025.04	1104.06	1031.25	156.018	599.880	599.706
-54.782578	1363.91	1364.56	1040.04	1025.04	1104.06	1032.68	164.931	600.828	600.429
-54.765882	1363.91	1364.40	1040.50	1025.25	1103.44	1032.89	165.568	600.828	600.533
-54.749586	1363.91	1364.56	1041.12	1025.35	1104.06	1032.07	164.931	600.512	600.429
-54.733368	1363.91	1364.40	1041.12	1025.35	1103.24	1031.86	164.931	600.828	600.429
-54.716579	1364.52	1364.40	1041.12	1025.56	1103.24	1032.07	164.454	601.354	601.256
-54.700371	1364.06	1364.87	1041.12	1025.66	1103.24	1031.25	156.655	601.354	601.256
-54.684152	1363.91	1364.56	1041.12	1025.35	1103.24	1029.20	149.015	600.407	600.533
-54.667367	1364.06	1364.56	1041.12	1025.56	1103.24	1028.59	149.651	600.407	600.429
-54.651159	1364.52	1364.56	1041.12	1025.56	1103.24	1029.20	152.835	600.407	600.326
-54.625350	1364.52	1364.40	1041.12	1025.97	1103.24	1032.68	159.997	601.249	601.256
-54.606898	1364.52	1364.87	1041.12	1026.28	1103.24	1034.32	165.090	600.828	600.843
-54.590681	1364.52	1365.18	1041.12	1025.97	1103.24	1032.89	161.111	600.407	600.119
-54.574390	1364.52	1364.87	1041.12	1025.86	1103.24	1031.05	159.838	600.196	600.016
-54.558174	1364.52	1364.71	1041.12	1025.97	1103.24	1029.20	152.835	600.407	600.119
-54.541954	1364.52	1364.56	1041.12	1025.86	1103.24	1028.59	148.378	599.880	600.016
-54.525176	1364.52	1364.40	1041.12	1025.86	1103.24	1028.79	150.925	600.407	600.429
-54.508965	1364.52	1364.56	1041.12	1025.86	1103.24	1032.07	154.108	600.617	600.429
-54.491738	1364.06	1364.87	1041.12	1025.56	1103.24	1034.32	159.201	599.985	600.016
-54.475443	1364.06	1364.87	1041.12	1025.35	1103.24	1033.50	154.904	600.407	600.429
-54.459233	1363.91	1364.87	1041.12	1025.56	1103.24	1032.07	158.724	600.617	600.429
-54.442505	1363.91	1364.87	1041.12	1025.86	1102.62	1031.05	156.655	600.933	600.843
-54.419029	1364.52	1364.40	1041.12	1026.28	1103.24	1029.00	152.835	600.828	600.636
-54.400012	1364.52	1364.87	1041.12	1026.28	1103.24	1028.59	150.925	600.828	600.533
-54.383237	1364.52	1364.87	1041.12	1026.28	1103.24	1029.20	153.471	601.249	600.843
-54.366020	1364.52	1364.87	1041.12	1026.28	1103.24	1032.07	151.084	601.565	601.050
-54.348811	1364.52	1364.87	1041.12	1026.28	1103.24	1031.05	150.925	600.933	600.533
-54.332513	1364.52	1364.87	1041.12	1026.28	1103.24	1029.20	147.741	600.828	600.429
-54.316292	1364.52	1364.87	1041.12	1026.28	1103.24	1031.05	148.537	600.407	600.119

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFV-2	PFVD	PFJ	PGH20T	PH20-J	PH20-OUT	PC-1	PC-2	POJI	TFJ	TBL	TOJ	TAO	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F
UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS	UNITS
VEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169
-54.299591	1364.52	1364.87	1041.12	1025.86	1103.24	1031.05	147.741	599.670	599.292	14.2195	70.2646	-275.62	-281.69	80.5246	130.147
-54.283285	1364.52	1364.87	1041.28	1026.07	1103.24	1028.59	147.264	599.775	599.602	14.2195	70.1965	-275.82	-281.06	96.9926	125.177
-54.267061	1364.52	1364.87	1041.12	1025.86	1102.83	1027.77	147.741	600.091	599.809	14.2195	70.1149	-275.62	-280.02	89.8122	129.479
-54.250763	1364.52	1364.87	1041.12	1025.86	1102.62	1031.05	148.537	600.196	600.119	14.2195	70.3054	-273.74	-281.06	85.8157	137.237
-54.234545	1364.52	1364.87	1040.97	1025.86	1103.24	1034.32	152.676	600.828	600.533	14.2195	70.1013	-272.39	-283.03	75.0985	134.299
-54.210332	1364.52	1364.87	1041.28	1026.28	1102.62	1032.07	152.357	600.828	600.429	14.2195	70.0878	-273.74	-283.73	57.0134	114.771
-54.190430	1364.52	1364.87	1041.12	1026.28	1102.41	1028.59	148.537	600.196	600.119	14.2195	70.1965	-275.89	-281.90	54.2427	100.575
-54.174299	1364.52	1364.87	1041.12	1026.28	1103.24	1027.77	148.378	600.617	600.429	14.2195	70.1965	-276.16	-280.85	75.9096	109.197
-54.157597	1364.52	1364.87	1041.12	1026.28	1102.41	1031.05	154.904	600.407	600.119	14.2195	70.1422	-276.10	-280.30	82.7053	109.815
-54.141310	1364.52	1364.87	1041.12	1026.28	1103.24	1032.68	156.177	600.407	600.119	14.2195	70.0333	-275.89	-281.62	77.7991	109.717
-54.125095	1364.52	1364.87	1041.12	1025.97	1103.24	1032.07	158.565	600.407	600.429	14.2195	70.1965	-275.01	-283.94	77.2260	105.093
-54.106779	1364.52	1364.87	1041.12	1025.97	1102.62	1031.25	164.295	599.985	600.119	14.2195	69.8156	-273.74	-288.75	72.0837	118.027
-54.090577	1364.52	1364.87	1041.12	1025.76	1103.24	1031.86	163.658	600.407	600.119	14.2195	69.5978	-273.94	-288.38	68.1378	143.461
-54.074355	1364.52	1364.87	1041.12	1025.86	1102.62	1028.79	155.381	599.985	599.912	14.2195	69.3937	-274.55	-284.44	54.9362	163.375
-54.057571	1364.52	1364.87	1040.81	1025.25	1102.41	1027.77	156.655	599.564	599.292	14.2195	69.4617	-275.07	-281.34	51.4623	161.254
-54.041367	1364.52	1365.03	1041.12	1026.07	1102.62	1030.23	162.385	599.985	600.016	14.2195	69.6523	-275.89	-279.67	53.4097	132.178
-54.024666	1364.52	1365.18	1041.74	1026.28	1102.41	1033.50	167.637	599.880	599.706	14.2195	70.0469	-274.01	-282.25	19.6202	117.448
-55.001102	1364.52	1365.34	1041.43	1026.28	1102.62	1032.68	171.934	600.828	600.843	14.2195	69.8700	-273.74	-288.82	37.9767	123.003
6.007598	1364.52	1365.34	1041.12	1026.38	1102.62	1031.05	168.115	600.828	600.946	14.2195	69.7883	-273.40	-286.22	23.1284	139.599
6.025112	1364.67	1365.34	1041.74	1026.59	1102.62	1031.05	163.658	600.407	600.119	14.2195	69.4753	-274.41	-283.38	24.4309	158.295
6.042397	1365.13	1365.34	1041.74	1026.59	1103.24	1027.98	158.565	599.985	599.706	14.2195	69.4345	-276.44	-281.48	62.0452	123.483
6.058616	1365.74	1365.34	1041.74	1026.79	1102.62	1027.98	157.291	600.617	600.429	14.3248	69.3800	-277.54	-280.58	112.184	95.0114
6.075398	1365.13	1365.34	1041.74	1027.31	1102.62	1029.20	157.928	600.512	600.429	14.4301	69.3528	-277.26	-280.30	139.631	84.8113
6.093606	1365.13	1365.34	1041.74	1027.00	1102.62	1031.05	157.769	600.407	600.119	14.2195	69.7611	-274.55	-283.24	85.0475	109.035
6.109858	1364.52	1365.34	1041.74	1026.79	1102.41	1031.86	164.931	600.828	600.739	14.2195	69.5570	-273.74	-282.46	69.7729	116.159
6.126611	1364.67	1365.34	1041.74	1027.00	1102.41	1031.86	173.208	601.354	601.256	14.2195	69.4345	-273.67	-281.06	76.1461	117.544
6.142826	1365.13	1365.18	1041.74	1027.00	1102.62	1031.86	170.025	600.617	600.429	14.2195	69.3256	-273.47	-280.58	97.2231	111.113
6.160179	1365.13	1365.34	1041.74	1027.00	1102.62	1032.68	168.910	600.828	600.636	14.2195	69.1621	-272.86	-280.85	93.2940	123.995
6.176329	1364.83	1365.18	1041.90	1027.10	1102.62	1031.05	161.111	602.091	601.670	14.0088	69.1621	-270.78	-280.85	66.6360	141.359
6.200242	1364.67	1365.18	1042.36	1027.41	1102.62	1028.59	159.838	601.565	601.463	14.2195	68.9442	-271.05	-281.06	38.2955	153.933
6.218454	1365.13	1365.34	1042.36	1027.72	1102.41	1031.05	165.727	601.565	601.670	14.2195	68.8897	-273.47	-280.58	97.2231	119.892
6.235541	1364.67	1365.34	1042.36	1027.93	1102.62	1031.05	165.090	601.249	601.050	14.2195	68.9442	-273.74	-280.58	102.904	109.945
6.251737	1365.13	1365.34	1042.36	1027.51	1104.06	1029.20	167.000	600.091	599.706	14.2195	68.9442	-272.39	-280.23	75.3351	133.888
6.268505	1364.83	1365.03	1041.74	1026.90	1102.62	1031.05	170.661	600.091	600.016	14.2195	68.9987	-272.66	-280.51	58.4642	158.943
6.285717	1364.67	1365.34	1041.74	1026.69	1102.41	1032.07	171.298	600.407	600.016	14.0088	68.7807	-272.39	-285.08	58.3951	145.276
6.302412	1364.67	1365.34	1041.74	1026.69	1102.41	1031.05	168.751	600.407	600.119	14.2195	68.6717	-271.79	-283.87	56.1832	134.553
6.318715	1365.13	1365.34	1041.74	1026.69	1102.62	1028.59	167.637	600.091	599.706	14.2195	68.7807	-271.85	-285.36	66.3968	124.378
6.334935	1364.83	1365.34	1041.74	1026.69	1102.62	1031.05	166.205	599.775	599.602	14.2195	68.7807	-272.86	-290.58	58.3951	115.126
6.352612	1365.13	1365.34	1041.74	1026.79	1102.62	1031.25	167.637	599.985	599.602	14.2195	68.7807	-274.28	-285.29	70.5212	117.963
6.369924	1365.13	1365.34	1041.74	1026.69	1102.62	1032.07	159.838	599.985	599.602	14.2195	68.5627	-273.20	-286.51	43.9056	122.875
6.386138	1365.13	1365.34	1041.74	1026.38	1102.41	1031.05	159.997	600.407	599.912	14.2195	68.8079	-270.78	-289.92	22.9475	117.480
6.411135	1365.29	1365.34	1042.36	1027.10	1102.62	1031.86	168.751	600.828	600.429	14.2195	69.3256	-272.93	-284.23	100.905	93.1929
6.427689	1365.74	1366.11	1042.36	1027.51	1102.41	1032.68	173.844	601.565	601.360	14.2195	68.5081	-272.39	-281.34	81.8337	120.406
6.444391	1365.74	1365.80	1042.36	1027.93	1102.41	1031.05	171.457	602.302	602.083	14.2195	68.3855	-272.39	-279.95	89.6793	126.932
6.460715	1365.74	1366.11	1042.52	1027.93	1102.41	1028.59	164.454	602.091	602.083	14.3248	68.3036	-271.85	-279.67	104.572	111.826
6.476914	1365.74	1366.11	1042.67	1027.93	1102.41	1027.98	162.544	601.565	601.360	14.2195	68.4127	-269.64	-279.74	83.8437	117.190
6.493612	1365.13	1365.34	1042.98	1027.93	1102.41	1031.25	163.658	601.038	600.946	14.2195	68.2491	-268.37	-280.02	59.7744	131.353
6.509912	1365.13	1365.34	1042.52	1027.51	1102.41	1031.86	158.565	601.354	601.360	14.2195	68.0992	-266.97	-279.26	14.6952	164.572
6.526132	1365.13	1365.65	1042.98	1027.62	1102.41	1028.79	155.381	602.091	601.773	14.2195	68.1264	-268.10	-279.46	35.5640	149.956

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102

CALIBRATION PERFORMED 08-31-78 14:44:37

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
6.542451	1365.29	1366.11	1042.98	1027.93	1102.41	1027.77	157.291	601.354
6.558661	1365.74	1366.11	1042.52	1027.93	1102.41	1031.05	162.544	601.775
6.574878	1365.74	1366.11	1042.98	1027.93	1102.41	1033.50	167.000	601.459
6.591657	1365.13	1365.80	1042.67	1027.51	1102.41	1032.68	167.478	600.828
6.615622	1365.74	1366.11	1042.36	1027.51	1102.41	1029.20	170.025	600.828
6.635886	1365.74	1366.11	1042.36	1027.51	1102.41	1027.98	162.544	600.828
6.653815	1365.74	1366.74	1042.36	1027.62	1102.62	1028.59	162.385	601.565
6.670013	1365.29	1366.11	1042.52	1027.93	1103.24	1032.07	164.931	602.512
6.686247	1365.13	1366.11	1042.67	1027.93	1102.41	1032.27	157.451	601.565
6.702559	1365.74	1366.11	1042.98	1027.93	1102.41	1029.20	150.925	601.249
6.718769	1365.74	1366.11	1042.98	1028.13	1102.41	1027.77	154.108	601.249
6.735465	1365.74	1366.11	1042.52	1028.03	1102.41	1029.20	154.108	600.828
6.751755	1365.90	1366.42	1042.67	1028.03	1102.62	1032.68	161.111	601.249
6.767968	1365.90	1366.42	1042.98	1028.34	1102.62	1035.14	162.862	602.091
6.784276	1365.90	1366.42	1042.98	1028.34	1102.41	1031.25	154.745	601.354
6.800490	1365.74	1366.27	1042.67	1027.93	1102.41	1026.14	150.288	600.617
6.824633	1365.74	1366.27	1042.52	1028.03	1102.41	1026.95	147.264	600.933
6.842533	1365.90	1366.74	1042.67	1028.03	1102.41	1031.05	158.565	601.038
6.858743	1366.05	1366.42	1042.98	1028.34	1102.41	1033.50	169.070	601.565
6.875423	1366.05	1366.27	1042.98	1028.34	1102.41	1033.50	172.571	601.459
6.891725	1365.90	1366.74	1042.98	1028.03	1102.41	1031.86	170.025	600.617
6.907941	1365.90	1366.74	1042.83	1027.93	1102.41	1030.23	166.205	600.933
6.924271	1366.05	1366.74	1042.98	1028.34	1102.41	1029.20	162.385	601.459
6.941491	1365.90	1366.74	1043.14	1028.44	1102.41	1027.77	157.928	601.565
6.957698	1365.90	1366.74	1043.60	1028.34	1102.41	1026.14	154.745	602.091
6.974477	1366.36	1366.74	1043.60	1028.34	1102.41	1029.20	161.111	601.038
6.991689	1366.36	1366.74	1043.14	1028.03	1102.41	1034.32	166.205	600.407
6.994400	1366.05	1366.74	1042.98	1027.93	1102.41	1033.50	159.201	599.880
7.017855	1365.90	1366.74	1042.52	1027.62	1102.41	1026.95	152.357	600.091
7.036370	1365.90	1367.36	1042.98	1027.72	1101.59	1027.98	153.471	601.459
7.052683	1366.36	1366.89	1042.98	1028.34	1102.41	1031.05	152.198	602.091
7.068897	1366.36	1366.89	1043.14	1028.44	1102.41	1031.05	156.655	601.354
7.085113	1366.36	1366.89	1043.14	1028.44	1102.41	1031.86	161.748	601.249
7.101898	1366.36	1366.74	1043.60	1028.44	1102.41	1031.25	164.454	601.249
7.118118	1366.36	1366.89	1043.60	1028.34	1102.41	1030.23	162.385	601.249
7.135322	1366.36	1366.74	1043.60	1028.34	1102.41	1030.23	163.817	601.670
7.151617	1366.36	1366.74	1043.60	1028.34	1102.62	1029.20	163.658	600.933
7.167844	1366.36	1366.74	1043.60	1028.34	1102.41	1026.14	158.724	600.828
7.184536	1366.36	1366.74	1043.60	1028.44	1102.41	1025.52	161.111	601.459
7.201843	1366.36	1366.74	1043.60	1028.54	1101.80	1030.23	168.751	601.775
7.225465	1366.36	1366.74	1043.60	1028.65	1102.41	1033.50	170.025	602.091
7.244360	1366.36	1366.74	1043.60	1028.65	1102.41	1031.05	170.025	601.249
7.260573	1366.97	1366.74	1043.60	1028.44	1102.41	1031.05	169.388	600.407
7.276801	1366.36	1367.05	1043.60	1028.34	1101.59	1030.23	167.478	600.407
7.294566	1366.36	1367.05	1043.60	1028.34	1102.41	1028.59	168.910	601.249
7.310780	1366.36	1367.36	1043.60	1028.65	1102.41	1027.77	171.298	601.881
7.328479	1366.97	1366.74	1043.91	1028.75	1102.41	1029.20	168.910	602.091
7.344776	1366.97	1366.74	1043.76	1028.75	1102.41	1031.05	169.388	601.249
7.360983	1366.97	1367.36	1043.60	1028.65	1101.80	1028.79	165.568	601.354

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 102 CALIBRATION PERFORMED 08-31-78 14:44:37 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 54 LU 14 FROM 264/ 0 TO 282/95 FILE STARTING T.O.D. 14:53:46.824333 T.C.V. ON T.O.D. 14:53:47.006287

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN							
PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO								
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F							
IEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169
7.377747	1366.97	1366.74	1043.60	1028.85	1101.80	1029.20	167.796	601.565	601.360	13.9035	65.7228	-268.50	-284.44	103.395	96.2325
7.394053	1366.97	1366.74	1043.76	1028.85	1101.80	1031.25	168.751	601.459	601.256	13.9035	66.0100	-268.10	-280.30	78.7086	110.107
7.411128	1366.97	1366.74	1043.76	1028.65	1101.80	1029.20	164.295	601.249	600.946	14.2195	66.1331	-267.30	-278.63	72.6605	129.988
7.428455	1366.36	1366.74	1044.07	1028.54	1101.80	1028.79	167.478	601.354	601.256	13.9035	66.0784	-266.50	-279.74	59.8089	133.951

END FILE

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	PGOT	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WL02-2	WH20P-2	WH20C-2					FCALB 31941B	
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33
-183427	3.04202	3.04920	14.0913	14.2378	14.4130	14.2131	-285.40	856.811	837.172
-166688	3.04232	3.05172	14.1047	14.2308	14.4241	14.2088	-285.37	856.811	835.478
-150474	3.03839	3.05480	14.1746	14.2046	14.4353	14.2131	-285.63	856.196	834.091
-134243	3.02752	3.05620	14.2298	14.2098	14.4297	14.2307	-285.40	855.888	832.859
-117951	3.02541	3.05985	14.2150	14.2308	14.4130	14.2409	-285.63	855.735	833.783
-101732	3.02752	3.06293	14.1800	14.2536	14.4018	14.2482	-285.88	855.735	833.475
-085029	3.03115	3.06741	14.1330	14.2658	14.4018	14.2482	-286.14	855.735	834.245
-068744	3.03598	3.07329	14.0563	14.2536	14.4130	14.2438	-286.17	855.735	835.323
-052514	3.03598	3.07189	14.0402	14.2466	14.4130	14.2365	-286.17	855.735	836.094
-036225	3.02269	3.05564	14.0671	14.2448	14.4032	14.2190	-286.33	855.735	855.658
-020010	2.88286	2.89932	14.0792	14.2518	14.3906	14.2015	-286.39	855.735	915.277
-003786	2.35737	2.35164	14.0523	14.2448	14.3795	14.1854	-286.55	856.196	898.793
020170	1.23029	1.22603	14.0307	14.2378	14.3795	14.1956	-286.68	856.811	906.342
038251	1.508797	1.578338	14.0240	14.2378	14.3823	14.2131	-286.90	857.118	861.512
054851	1.122230	1.257014	13.9702	14.2326	14.3906	14.2321	-287.06	858.040	873.683
072156	1.017133	1.165127	13.9312	14.2326	14.4241	14.2482	-287.19	858.040	889.088
088382	0.019549	0.151120	13.9447	14.2378	14.4520	14.2555	-287.28	858.194	857.661
105144	0.052165	0.144957	13.9487	14.2483	14.4688	14.2555	-287.28	858.194	887.855
121366	0.098674	0.149439	13.9366	14.2466	14.4688	14.2555	-287.41	858.501	883.080
137593	0.147599	0.134871	13.9433	14.2448	14.4520	14.2540	-287.44	859.270	858.431
154363	0.220080	0.130389	13.9702	14.2413	14.4241	14.2482	-287.67	859.270	895.250
170578	0.285313	0.151120	13.9716	14.2448	14.3920	14.2409	-287.92	859.270	875.993
186792	0.285313	0.190620	13.9433	14.2466	14.3809	14.2394	-287.95	859.424	863.053
203100	0.260247	0.271301	13.9393	14.2536	14.3795	14.2365	-287.95	859.731	897.561
229554	0.241824	0.331812	13.9353	14.2413	14.3864	14.2409	-288.11	859.731	858.740
247435	0.251791	0.304918	13.9554	14.2448	14.3906	14.2423	-288.18	860.500	893.864
263742	0.236992	0.271581	13.9810	14.2378	14.4018	14.2482	-288.21	860.500	882.464
279956	0.187463	0.269340	14.0038	14.2326	14.4074	14.2482	-288.43	860.500	860.588
296642	0.147599	0.283908	14.0106	14.2308	14.4032	14.2365	-288.37	860.500	896.328
312949	0.197128	0.273822	13.9810	14.2308	14.3920	14.2307	-288.43	860.500	880.461
330164	0.288031	0.254773	13.9379	14.2308	14.3809	14.2248	-288.46	860.500	862.437
346953	0.350546	0.298195	13.9272	14.2308	14.3627	14.2073	-288.72	860.653	897.561
364171	0.362627	0.329571	13.9272	14.2308	14.3516	14.1912	-288.72	860.807	879.999
380397	0.328802	0.325369	13.9433	14.2186	14.3599	14.1942	-288.72	860.807	863.515
397167	0.283199	0.316124	13.9366	14.2098	14.3795	14.2131	-288.81	861.114	897.561
414389	0.241824	0.348901	13.9554	14.2221	14.3906	14.2365	-288.69	861.114	880.769
439780	0.263871	0.346380	13.9662	14.2501	14.4032	14.2540	-288.97	863.574	882.156
542214	0.290145	0.285588	13.9864	14.2588	14.4018	14.2540	-289.13	861.729	894.172
467006	0.290145	0.235443	13.9917	14.2675	14.3809	14.2365	-289.20	861.729	865.518
483705	0.280481	0.191180	13.9769	14.2658	14.3571	14.2131	-289.07	861.729	884.004
500000	0.281991	0.182776	13.9608	14.2536	14.3404	14.1942	-288.94	861.729	895.712
517225	0.244240	0.193421	13.9501	14.2448	14.3404	14.1927	-289.13	861.729	868.291
533918	0.181725	0.189499	13.9433	14.2378	14.3571	14.2015	-289.20	861.729	881.231
551226	0.183839	0.186138	13.9487	14.2396	14.3795	14.2073	-289.32	861.729	897.099
567442	0.193504	0.188379	13.9756	14.2588	14.3962	14.2131	-289.48	861.729	871.680
585209	0.183839	0.258695	14.0146	14.2675	14.4130	14.2146	-289.58	861.729	873.683
601426	0.204376	0.357305	14.0065	14.2675	14.4018	14.2146	-289.58	861.729	826.542
618653	0.546246	0.694878	13.9608	14.2448	14.3864	14.2146	-289.74	861.729	790.956
645075	1.97654	2.04657	13.9716	14.2308	14.3851	14.2248	-289.74	861.114	784.486



## RANS-REGEN ENGINE TEST

EST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78

02:01:46

CAL DECK FILE NAME 'TR7046'

DIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WLO2-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PGFT	
PARAMETER	WLO2-2		WH20P-2		WH20C-2		PGOT		POJ		F-B		FCALB 31941B		PGFT	
INITS	LB-W	LR-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA	PSIA
IEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49	
.662703	3.09124	3.11980	14.0469	14.2378	14.3906	14.2248	-289.64	860.500	807.132	546.136	1015.19	996.434	-55820	-92369	14.0464	
.679361	3.79099	3.79942	14.1047	14.2378	14.4018	14.2307	-289.58	860.038	825.002	732.859	1413.05	1390.22	.678429	-1.5423	14.0464	
.695685	4.00602	4.01401	14.1800	14.2396	14.4032	14.2409	-289.45	859.424	828.237	774.523	1525.41	1513.99	-55820	-1.5423	14.0464	
.711890	3.95649	3.96975	14.1746	14.2448	14.4199	14.2599	-289.58	858.655	825.618	761.932	1520.30	1520.59	-55820	-1.3361	14.0464	
.728191	3.83387	3.85741	14.0832	14.2606	14.4576	14.2949	-289.58	858.655	823.770	747.498	1502.69	1509.04	-1.1765	-1.3361	14.0464	
.744417	3.72576	3.76329	14.0240	14.2745	14.5037	14.3474	-289.83	858.040	822.999	741.867	1496.35	1503.27	-1.3826	-1.5423	14.0464	
.760633	3.65237	3.70025	14.0240	14.3008	14.5483	14.3883	-290.12	858.040	824.848	742.584	1499.01	1504.50	-1.3826	-1.5423	14.0464	
.778392	3.60858	3.65907	14.0267	14.3235	14.5860	14.4234	-289.96	857.425	824.848	744.222	1504.95	1509.25	-55820	-1.5423	14.0464	
.794627	3.58230	3.63190	14.0348	14.3288	14.6265	14.4526	-290.22	857.425	822.537	743.403	1504.74	1509.04	-1.3826	-92369	14.0464	
.810847	3.56416	3.61061	14.0376	14.3183	14.6614	14.4701	-289.96	857.425	821.767	742.584	1505.56	1510.07	-97041	-1.3361	14.0464	
.827136	3.55301	3.59492	14.0778	14.3148	14.6865	14.4788	-289.99	858.040	822.383	743.403	1507.20	1511.72	-55820	-1.3361	14.0464	
.850719	3.53519	3.57811	14.0415	14.3148	14.6921	14.4818	-290.15	856.811	818.686	741.356	1505.56	1510.69	-97041	-1.1299	13.4312	
.871997	3.52553	3.56494	13.9864	14.3008	14.6991	14.4876	-289.99	856.811	818.686	741.048	1507.20	1512.34	-1.1765	-1.5423	13.4312	
.888282	3.52281	3.55906	13.9756	14.2955	14.7088	14.4891	-290.38	856.196	819.610	742.277	1508.83	1513.99	-55820	-71747	14.0464	
.904500	3.51828	3.55570	13.9729	14.2903	14.7158	14.4949	-290.25	856.196	820.072	742.174	1509.45	1514.41	-1.1765	-1.3361	14.0464	
.920802	3.51556	3.55570	13.9931	14.2868	14.7158	14.4993	-290.25	855.735	819.918	742.174	1510.47	1515.64	-1.3826	-1.5423	14.0464	
.937015	3.51194	3.55486	14.0671	14.2955	14.7144	14.4993	-290.50	855.735	818.686	741.867	1510.47	1515.64	-1.3826	-1.3361	14.0464	
.954249	3.50892	3.54674	14.2513	14.3113	14.6879	14.4934	-290.50	855.581	818.686	741.048	1510.47	1515.64	-1.3826	-1.3361	14.0464	
.971021	3.50469	3.54001	14.3360	14.3043	14.6614	14.4876	-290.50	855.581	819.918	741.765	1511.50	1516.47	-1.3826	-1.3361	14.0464	
.987250	3.50590	3.54225	14.2177	14.2868	14.6586	14.4934	-290.76	855.581	819.918	741.765	1510.68	1515.85	-1.3826	-92369	13.6362	
1.003952	3.50831	3.54365	14.1383	14.2780	14.6712	14.5007	-290.73	855.581	821.305	741.867	1511.50	1516.47	-1.3826	-1.5423	14.0464	
1.020244	3.51073	3.54225	14.1034	14.2868	14.6921	14.5051	-290.73	855.581	820.072	740.946	1509.86	1514.82	-1.1765	-1.5423	14.0464	
1.037465	3.50620	3.53329	14.0415	14.3008	14.6698	14.4905	-291.14	855.581	819.148	738.899	1506.79	1512.34	-1.3826	-1.3361	13.6362	
1.060503	3.49503	3.52320	14.0267	14.2868	14.6753	14.4818	-290.92	855.581	819.918	738.899	1508.02	1512.55	-1.3826	-1.3361	14.0464	
1.078996	3.48808	3.52124	14.0321	14.2745	14.7037	14.4818	-290.76	855.581	820.072	738.489	1508.22	1513.17	-1.3826	-1.3361	14.0464	
1.095207	3.48083	3.51536	14.0348	14.2868	14.7256	14.4876	-290.76	855.581	819.918	737.056	1505.56	1511.31	-1.3826	-1.5423	13.6362	
1.111976	3.47721	3.51424	14.0778	14.3095	14.7270	14.4876	-290.89	855.581	820.534	737.670	1508.22	1513.17	-1.3826	-92369	14.0464	
1.128212	3.48778	3.51760	14.0899	14.3288	14.7144	14.4832	-290.73	855.581	821.305	738.489	1508.83	1513.99	-1.1765	-92369	13.6362	
1.145898	3.49623	3.51872	14.0630	14.3323	14.6809	14.4701	-290.76	855.581	821.459	739.411	1511.29	1515.64	-1.3826	-92369	13.6362	
1.163195	3.49200	3.51340	14.0025	14.3218	14.6586	14.4584	-290.98	855.581	821.151	739.308	1510.47	1515.02	-97041	-92369	13.6362	
1.179414	3.48174	3.50639	13.9971	14.3060	14.6474	14.4526	-290.76	855.581	819.918	737.261	1507.20	1512.34	-1.1765	-1.5423	14.0464	
1.196104	3.47479	3.50527	14.0240	14.3025	14.6363	14.4409	-290.76	855.581	820.534	737.363	1508.02	1513.17	-1.3826	-1.3361	14.0464	
1.212410	3.47690	3.50976	14.0402	14.3095	14.6363	14.4248	-290.73	855.581	820.688	738.592	1512.11	1516.47	-1.3826	-92369	14.0464	
1.228625	3.47449	3.51088	14.0415	14.3043	14.6474	14.4234	-290.66	855.273	819.302	736.954	1509.86	1514.82	-97041	-71747	14.0464	
1.245921	3.47449	3.50864	14.0146	14.2868	14.6474	14.4263	-290.85	855.581	819.918	736.954	1509.04	1513.99	-97041	-1.5423	14.0464	
1.269897	3.46966	3.50303	13.9971	14.2885	14.6474	14.4263	-290.76	855.581	818.994	736.032	1507.40	1512.55	-97041	-1.3361	14.0464	
1.289285	3.46845	3.50107	14.0186	14.3060	14.6251	14.4277	-291.01	855.581	820.380	737.773	1510.47	1514.82	-97041	-1.3361	14.0464	
1.306053	3.46754	3.49995	14.0025	14.3008	14.6153	14.4350	-290.92	855.581	820.072	736.851	1508.83	1513.99	-76431	-1.3361	14.0464	
1.322273	3.46966	3.49771	13.9917	14.2955	14.6251	14.4409	-291.01	855.581	819.918	736.135	1508.02	1512.55	-1.1765	-1.3361	14.0464	
1.338503	3.47207	3.49463	14.0469	14.3060	14.6363	14.4482	-291.01	855.581	819.148	736.032	1508.22	1513.17	-1.1765	-1.1299	13.4312	
1.355257	3.47358	3.49099	14.0899	14.3218	14.6474	14.4584	-291.01	855.581	819.918	735.725	1508.02	1512.55	-97041	-1.3361	14.0464	
1.371478	3.48174	3.49323	14.0845	14.3148	14.6642	14.4701	-290.98	855.581	819.918	736.851	1509.24	1513.99	-55820	-1.3361	14.0464	
1.387730	3.48808	3.49435	14.0738	14.2885	14.6809	14.4818	-290.92	855.581	821.459	736.954	1510.47	1514.82	-97041	-1.1299	13.4312	
1.405017	3.49261	3.49631	14.0240	14.2815	14.6921	14.4891	-291.01	855.581	822.537	737.261	1510.47	1515.02	-55820	-1.3361	14.0464	
1.421210	3.49382	3.49911	13.9702	14.2868	14.6977	14.4934	-291.11	855.581	822.383	737.670	1512.31	1516.47	-1.1765	-1.5423	14.0464	
1.437902	3.49261	3.50387	13.9810	14.2938	14.6977	14.4949	-291.36	855.581	821.613	738.489	1512.31	1517.29	-55820	-1.5423	14.0464	
1.454209	3.48687	3.50667	14.0240	14.3043	14.6865	14.4905	-291.49	855.581	821.151	738.899	1514.57	1518.94	-1.1765	-1.3361	14.0464	
34169.4688	3.48174	3.50751	14.0294	14.3148	14.6977	14.4934	-291.62	855.581	820.688	738.080	1513.13	1517.50	-55820	-1.3361	14.0464	
34169.4874	3.48778	3.51088	14.0361	14.3148	14.7144	14.4934	-291.27	855.581	820.226	738.899	1513.95	1518.94	-97041	-1.5423	14.0464	



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WI 02-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PGFT
PARAMETER		WL02-2		WH20P-2		WH20C-2		PGOT		POJ		F-B		FCALB 31941B	
UNITS	LR-W	LR-W	LR-W	LR-W	LR-W	LR-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	PSIA	
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
34169.5035	3.48778	3.51088	14.1061	14.3218	14.7144	14.4818	-291.36	855.581	819.918	738.694	1514.57	1519.15	-55820	-1.5423	14.0464
34169.5197	3.48294	3.50976	14.1383	14.3288	14.7088	14.4642	-291.17	855.581	818.994	738.489	1512.93	1518.12	-1.3826	-0.92369	13.6362
34169.5360	3.47811	3.50639	14.0778	14.3253	14.7033	14.4467	-291.01	855.581	818.686	737.670	1512.31	1517.29	-0.97041	-0.92369	13.6362
34169.5532	3.47811	3.50191	14.0240	14.3113	14.6809	14.4307	-291.01	855.581	818.070	737.261	1512.11	1516.47	-1.1765	-0.71747	13.6362
34169.5699	3.47811	3.50191	14.0092	14.3095	14.6488	14.4146	-289.96	855.581	818.070	737.670	1512.72	1517.29	-0.97041	-1.5423	14.0464
34169.5862	3.47690	3.50303	13.9998	14.3008	14.6363	14.4117	-291.49	855.581	818.070	737.670	1512.72	1517.29	-0.97041	-1.3361	14.0464
34169.6025	3.47479	3.50527	13.9917	14.2780	14.6516	14.4234	-291.62	855.581	818.686	738.182	1513.13	1517.50	-55820	-1.3361	14.0464
34169.6198	3.47328	3.50808	14.0052	14.2728	14.6656	14.4409	-291.52	855.581	819.302	738.592	1513.75	1518.32	-1.1765	-1.5423	14.0464
34169.6360	3.47600	3.51200	14.0038	14.2868	14.6488	14.4584	-291.27	855.581	819.456	739.718	1517.02	1521.42	-55820	-1.5423	14.0464
34169.6522	3.47811	3.51200	13.9864	14.3008	14.6377	14.4715	-291.49	855.581	818.070	737.773	1512.93	1517.50	-1.1765	-0.92369	13.6362
34169.6758	3.47207	3.50808	13.9716	14.2938	14.6377	14.4876	-291.27	855.581	818.378	737.670	1513.75	1518.12	-1.1765	-1.3361	14.0464
34169.6941	3.47449	3.51004	14.0038	14.2868	14.6377	14.4934	-291.36	855.581	819.148	738.489	1513.75	1518.94	-1.1765	-1.5423	14.0464
34169.7109	3.48294	3.51284	14.0038	14.2938	14.6363	14.4832	-291.39	855.581	820.688	739.718	1515.38	1519.97	-55820	-1.3361	14.0464
34169.7272	3.48657	3.51452	13.9810	14.2955	14.6209	14.4730	-291.49	855.581	820.534	739.820	1516.20	1520.80	-55820	-0.92369	13.4312
34169.7435	3.48657	3.51284	13.9702	14.2955	14.6042	14.4584	-291.68	855.581	820.226	739.308	1515.38	1519.77	-0.97041	-1.5423	14.0464
34169.7608	3.49140	3.51704	13.9850	14.2885	14.5972	14.4409	-291.75	855.581	819.918	740.127	1516.41	1521.42	-55820	-1.3361	14.0464
34169.7770	3.49412	3.52096	13.9662	14.2938	14.6084	14.4350	-291.52	855.581	819.918	739.308	1514.77	1519.77	-1.1765	-1.5423	14.0464
34169.7932	3.48899	3.52096	13.9716	14.2868	14.6153	14.4234	-291.65	855.581	819.456	738.899	1515.38	1520.59	-55820	-1.3361	14.0464
34169.8100	3.48204	3.51760	13.9971	14.2938	14.6098	14.4234	-291.52	855.581	818.070	737.773	1514.57	1518.94	-1.1765	-1.1299	13.0210
34169.8262	3.48174	3.51424	14.0146	14.2885	14.6139	14.4307	-291.43	855.581	818.994	738.489	1514.57	1519.36	-1.3826	-1.5423	14.0464
34169.8429	3.48204	3.51088	14.0133	14.2780	14.6153	14.4438	-291.49	855.581	819.148	738.899	1517.02	1522.24	-1.1765	-1.3361	14.0464
34169.8592	3.48294	3.50527	14.0348	14.2938	14.6139	14.4409	-291.52	855.581	819.918	738.592	1517.84	1522.24	-1.1765	-1.3361	14.0464
34169.8857	3.48415	3.50303	14.0402	14.3008	14.6042	14.4409	-291.68	855.581	818.994	738.899	1517.84	1522.24	-1.3826	-1.3361	14.0464
34169.9021	3.48174	3.50191	14.0281	14.2938	14.6028	14.4350	-291.65	855.581	819.918	739.308	1517.84	1522.45	-0.97041	-0.92369	13.6362
34169.9184	3.47751	3.49967	14.0509	14.3060	14.5818	14.4234	-291.62	855.581	819.148	737.977	1517.02	1522.24	-1.3826	-1.1299	13.4312
34169.9346	3.47358	3.49743	14.0509	14.3148	14.5693	14.4117	-291.52	855.581	818.994	737.773	1516.20	1520.80	-55820	-0.92369	14.0464
34169.9509	3.47690	3.49855	14.0173	14.3008	14.5818	14.4131	-291.62	855.581	819.148	738.080	1516.41	1521.42	-1.1765	-1.5423	14.0464
34169.9681	3.47600	3.49967	14.0119	14.2938	14.6042	14.4234	-291.78	855.581	819.610	738.080	1515.59	1520.59	-55820	-1.5423	14.0464
34169.9844	3.47570	3.50191	14.0240	14.3008	14.6265	14.4292	-291.87	855.581	821.151	739.308	1518.04	1522.66	-1.3826	-1.5423	14.0464
34170.0021	3.47841	3.50527	14.0509	14.3008	14.6600	14.4496	-292.03	855.581	821.305	739.308	1518.66	1523.07	-1.1765	-1.5423	14.0464
34170.0183	3.47962	3.50359	14.0778	14.3060	14.6809	14.4657	-291.78	855.581	820.226	738.489	1517.84	1522.24	-0.97041	-0.92369	14.0464
34170.0347	3.47962	3.50079	14.1155	14.3165	14.6656	14.4657	-292.03	855.581	821.151	738.592	1517.84	1522.24	-1.1765	-1.5423	14.0464
34170.0519	3.47811	3.49911	14.1114	14.3235	14.6642	14.4642	-292.16	855.581	820.534	738.489	1516.20	1520.80	-55820	-1.3361	14.0464
34170.0691	3.47479	3.49967	14.0724	14.3043	14.6712	14.4657	-292.00	855.581	819.918	737.670	1515.38	1519.77	-1.1765	-1.3361	14.0464
34170.0924	3.46724	3.50079	13.9985	14.2780	14.6698	14.4745	-292.03	855.581	820.534	738.080	1517.02	1521.01	-1.3826	-1.3361	14.0464
34170.1107	3.46754	3.49855	14.0038	14.2798	14.6530	14.4876	-292.03	855.581	820.226	737.670	1516.20	1520.80	-55820	-1.3361	14.0464
34170.1269	3.47449	3.49855	14.0254	14.2868	14.6586	14.4891	-292.03	855.581	820.534	737.670	1516.00	1520.59	-55820	-1.3361	14.0464
34170.1432	3.48053	3.50191	14.0348	14.2868	14.6642	14.4934	-292.38	855.581	820.534	737.670	1516.00	1520.59	-55820	-1.1299	13.4312
34170.1594	3.48174	3.50415	14.0402	14.2780	14.6642	14.4934	-292.29	855.581	820.534	736.851	1514.57	1519.36	-55820	-5.1125	14.0464
34170.1761	3.47992	3.50191	14.0160	14.2588	14.6642	14.4993	-291.01	855.581	821.613	737.670	1515.38	1519.97	-0.97041	-1.3361	13.6362
34170.1924	3.48174	3.50247	13.9716	14.2518	14.6642	14.5110	-292.51	855.581	822.383	739.001	1517.02	1522.24	-0.97041	-1.3361	14.0464
34170.2086	3.48536	3.50303	13.9702	14.2588	14.6502	14.5110	-292.51	855.581	821.459	738.899	1517.02	1521.62	-55820	-0.92369	14.0464
34170.2249	3.49503	3.50331	14.0186	14.2780	14.6363	14.5051	-292.41	855.581	820.534	737.773	1517.02	1521.01	-0.97041	-0.71747	13.6362
34170.2411	3.51435	3.50695	14.1316	14.3008	14.6139	14.4847	-292.25	855.581	821.459	737.670	1516.00	1520.59	-55820	-1.5423	14.0464
34170.2584	3.52764	3.51200	14.2446	14.3148	14.5972	14.4701	-292.45	855.581	823.615	739.308	1518.66	1523.07	-1.1765	-1.5423	14.0464
34170.2751	3.52523	3.51648	14.1800	14.3183	14.5804	14.4584	-292.54	855.581	824.848	741.765	1521.11	1526.37	-1.3826	-0.92369	14.0464
34170.2986	3.50107	3.51284	14.0671	14.3235	14.5539	14.4307	-292.64	855.581	822.691	739.820	1519.48	1524.10	-55820	-0.92369	13.6362
34170.3180	3.48053	3.50751	14.0038	14.3235	14.5497	14.4131	-292.54	855.581	821.151	738.796	1517.84	1522.24	-1.1765	-1.5423	14.0464
34170.3348	3.47207	3.50751	14.0254	14.3183	14.5581	14.4175	-292.41	856.503	819.918	738.899	1518.04	1523.07	-1.1765	-1.5423	14.0464

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WL02-1	WL02-2	WH20P-1	WH20P-2	WH20C-1	WH20C-2	TOFM	PGOT	POV	F-A	FCALA	31941A	PGFT		
PARAMETER	WL02-1	WL02-2	WH20P-1	WH20P-2	WH20C-1	WH20C-2	TOFM	PGOT	POV	F-A	FCALA	31941A	PGFT		
UNITS	LR-W	LR-W	LR-W	LR-W	LR-W	LR-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	PSIA		
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
34170.3510	3.46845	3.50415	14.0200	14.3043	14.5595	14.4175	-292.76	855.581	819.918	738.489	1518.66	1523.28	-1.1765	-1.3361	14.0464
34170.3677	3.47147	3.49995	14.0133	14.2938	14.5693	14.4277	-292.54	855.581	818.686	737.670	1517.23	1522.24	-1.1765	-.92369	14.0464
34170.3840	3.47207	3.49967	14.0348	14.3008	14.5860	14.4365	-292.54	855.581	816.683	736.851	1516.41	1521.01	-.55820	-1.1299	14.0464
34170.4002	3.46875	3.49743	14.0455	14.3008	14.5986	14.4350	-292.64	855.581	816.991	736.339	1514.77	1519.97	-1.3826	-1.3361	14.0464
34170.4169	3.46845	3.49687	14.0455	14.3043	14.6056	14.4350	-292.64	855.581	818.070	737.670	1518.04	1522.45	-1.3826	-1.5423	14.0464
34170.4332	3.46513	3.49519	14.0281	14.3078	14.6139	14.4234	-292.70	855.581	817.145	737.670	1517.23	1522.24	-1.1765	-1.3361	14.0464
34170.4494	3.45758	3.49183	14.0240	14.3060	14.6139	14.4175	-292.80	855.581	816.529	736.442	1515.38	1519.97	-1.1765	-.71747	14.0464
34169.4662	3.45546	3.48959	14.0348	14.2955	14.6084	14.4190	-292.80	855.581	817.453	737.261	1517.02	1521.42	-.55820	-1.3361	14.0464
2.467377	3.45999	3.49239	14.0671	14.2903	14.5930	14.4175	-293.78	855.581	817.453	737.670	1518.66	1522.66	-1.3826	-1.3361	14.0464
2.490895	3.46754	3.49631	14.0778	14.3060	14.5972	14.4131	-293.18	855.581	819.148	739.308	1519.27	1524.10	-.55820	-1.3361	14.0464
2.509510	3.47086	3.50079	14.0671	14.2903	14.6209	14.4175	-293.02	855.581	819.918	739.411	1519.27	1524.51	-1.1765	-.92369	13.6362
2.526587	3.47207	3.50415	14.0523	14.2728	14.6377	14.4234	-293.15	855.581	819.302	739.718	1519.68	1524.72	-.97041	-1.3361	14.0464
2.543277	3.47328	3.50527	14.0738	14.2780	14.6391	14.4190	-293.27	855.581	818.994	739.308	1521.11	1525.54	-.97041	-1.3361	14.0464
2.559583	3.47932	3.50527	14.0899	14.2938	14.6265	14.4190	-293.18	855.581	817.453	738.592	1519.27	1524.72	-.55820	-1.5423	14.0464
2.575813	3.47690	3.50219	14.0724	14.2920	14.6209	14.4248	-292.92	855.581	816.221	736.646	1517.02	1521.42	-.55820	-1.3361	14.0464
2.592118	3.46845	3.49687	14.0523	14.2745	14.6265	14.4409	-293.05	855.581	816.375	736.646	1517.02	1522.24	-1.3826	-1.5423	14.0464
2.608347	3.46482	3.49743	14.0267	14.2798	14.6363	14.4467	-293.02	855.581	817.145	737.363	1518.66	1523.07	-1.1765	-1.3361	14.0464
2.624544	3.46754	3.49855	14.0307	14.3025	14.6419	14.4409	-293.18	855.581	816.991	738.080	1519.27	1524.10	-.55820	-1.5423	14.0464
2.641307	3.46996	3.49771	14.0402	14.3218	14.6488	14.4350	-293.27	855.581	818.070	738.796	1519.68	1524.72	-.97041	-1.3361	14.0464
2.657529	3.46754	3.49687	14.0523	14.3218	14.6488	14.4234	-293.27	855.581	817.761	737.773	1518.86	1523.28	-1.1765	-1.5423	14.0464
2.674757	3.46513	3.49491	14.0361	14.3060	14.6432	14.4175	-293.27	855.581	818.686	737.773	1519.27	1524.10	-.55820	-1.5423	14.0464
2.698299	3.47328	3.49939	14.0200	14.3008	14.6195	14.4117	-293.02	855.581	819.148	738.899	1521.11	1526.37	-1.1765	-1.3361	14.2514
2.718986	3.47932	3.50387	14.0402	14.3183	14.6042	14.4117	-293.31	855.581	820.688	739.718	1521.11	1525.75	-.55820	-1.3361	14.0464
2.735121	3.48204	3.50527	14.0402	14.3165	14.6098	14.4117	-293.53	855.581	820.226	740.127	1521.93	1527.19	-.55820	-1.5423	14.0464
2.751329	3.47811	3.49939	14.0186	14.2920	14.6265	14.4117	-293.40	855.581	818.840	738.182	1519.27	1524.31	-.55820	-1.3361	14.0464
2.767561	3.47268	3.49239	13.9917	14.2728	14.6432	14.4234	-293.40	855.581	818.224	736.442	1517.02	1522.24	-.55820	-1.3361	14.0464
2.784333	3.47086	3.49043	14.0186	14.2728	14.6474	14.4234	-293.21	855.581	818.686	736.954	1518.66	1523.28	-.55820	-1.3361	14.0464
2.800543	3.46966	3.49183	14.0617	14.2938	14.6377	14.4190	-293.43	855.581	819.148	738.182	1520.30	1525.54	-.97041	-1.3361	14.0464
2.816769	3.47268	3.49407	14.0845	14.3148	14.6195	14.4029	-293.43	855.581	819.456	738.899	1521.11	1526.37	-1.3826	-1.1299	13.4312
2.833055	3.47570	3.49295	14.0845	14.3218	14.5930	14.3810	-293.31	855.581	819.148	737.670	1519.89	1524.72	-.55820	-.92369	14.0464
2.849279	3.47237	3.49183	14.0576	14.3148	14.5804	14.3708	-293.31	855.581	819.610	737.670	1519.07	1523.89	-.55820	-.71747	14.0464
2.865975	3.46875	3.48847	14.0133	14.2815	14.5916	14.3766	-293.18	855.581	818.686	736.442	1517.84	1522.45	-.55820	-1.3361	14.0464
2.882272	3.46603	3.48566	14.0133	14.2658	14.6042	14.3942	-293.31	855.581	818.070	736.544	1518.66	1523.28	-.55820	-.92369	14.0464
2.906154	3.46603	3.49071	14.0738	14.2868	14.6307	14.4175	-293.31	855.581	817.453	736.135	1517.84	1522.45	-.97041	-1.3361	14.0464
2.924305	3.46482	3.49071	14.0899	14.3008	14.6251	14.4234	-293.31	855.581	818.994	736.442	1518.66	1523.07	-1.3826	-.92369	14.0464
2.940465	3.46754	3.49099	14.0738	14.3060	14.6084	14.4234	-293.43	855.581	821.305	738.592	1521.52	1526.37	-1.3826	-1.1299	13.6362
2.956734	3.47570	3.49407	14.0455	14.3008	14.6028	14.4234	-293.56	855.581	821.459	739.308	1522.34	1527.19	-1.1765	-1.1299	13.6362
2.972993	3.48536	3.49799	14.0254	14.2903	14.5860	14.4263	-293.46	855.581	821.613	739.308	1522.14	1527.19	-.55820	-1.3361	14.0464
2.989226	3.48536	3.49883	14.0455	14.2868	14.5804	14.4248	-293.18	855.581	821.151	738.592	1521.93	1527.19	-1.1765	-.71747	13.8413
3.005900	3.48174	3.49519	14.1209	14.2955	14.5804	14.4234	-293.56	855.581	820.534	737.670	1520.30	1525.54	-1.3826	-.71747	14.0464
3.022216	3.48083	3.49295	14.1424	14.3008	14.5804	14.4175	-293.56	855.581	820.534	737.670	1521.11	1525.75	-1.1765	-1.3361	13.6362
3.038440	3.47962	3.49295	14.1047	14.2955	14.5916	14.4117	-293.31	855.581	819.456	736.851	1519.07	1523.89	-.55820	-1.71747	14.0464
3.055210	3.48053	3.49071	14.0509	14.2728	14.6139	14.4234	-293.56	855.581	819.148	736.032	1517.84	1522.45	-.55820	-.71747	14.0464
3.071423	3.49382	3.48875	14.0307	14.2658	14.6251	14.4321	-293.56	855.581	821.151	736.851	1519.07	1524.10	-.55820	-1.5423	14.0464
3.087642	3.50227	3.49071	14.0523	14.2780	14.6084	14.4263	-293.56	855.581	822.383	738.080	1521.52	1526.37	-1.3826	-.92369	14.0464
3.113074	3.49653	3.49575	14.0038	14.2833	14.6139	14.4277	-293.56	855.581	822.999	738.899	1521.93	1527.19	-.97041	-1.3361	14.0464
3.129672	3.49140	3.49855	13.9393	14.2728	14.6307	14.4409	-293.56	855.581	823.615	739.718	1522.75	1528.02	-.97041	-1.3361	14.0464
3.146375	3.48778	3.50219	13.9339	14.2623	14.6474	14.4584	-293.56	855.581	822.383	740.127	1524.80	1529.67	-1.3826	-1.3361	14.0464
3.162664	3.48415	3.50415	13.9662	14.2728	14.6586	14.4672	-293.78	855.581	821.613	739.513	1523.57	1528.84	-1.3826	-1.3361	14.0464

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WL02-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B	
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32
3.178894	3.48053	3.50443	14.0240	14.2833	14.6586	14.4745	-293.78	855.581
3.195195	3.47811	3.50527	14.0482	14.2955	14.6488	14.4745	-293.56	855.581
3.211427	3.47690	3.50191	14.0348	14.3095	14.6432	14.4701	-293.56	855.581
3.227653	3.47117	3.49491	14.0038	14.3165	14.6363	14.4526	-293.43	855.581
3.244416	3.46966	3.49295	13.9864	14.3235	14.6363	14.4409	-293.56	855.581
3.260647	3.46875	3.49407	13.9850	14.3148	14.6377	14.4409	-293.56	855.581
3.276855	3.46271	3.49211	14.0186	14.3025	14.6251	14.4467	-293.46	855.581
3.293164	3.45878	3.49099	14.0563	14.3043	14.6139	14.4526	-293.40	855.581
3.317588	3.45818	3.49183	14.0711	14.3008	14.6474	14.4759	-293.56	855.581
3.337431	3.45999	3.49099	14.0294	14.3008	14.6809	14.4876	-293.82	855.581
3.354275	3.46603	3.49295	14.0025	14.3025	14.6712	14.4759	-293.72	855.581
3.370498	3.47086	3.49407	13.9931	14.3218	14.6488	14.4584	-293.72	855.581
3.387737	3.46966	3.49407	14.0442	14.3288	14.6251	14.4409	-293.78	855.581
3.404001	3.46603	3.49295	14.0563	14.3235	14.5986	14.4263	-293.78	855.581
3.420216	3.46392	3.49183	14.0388	14.3078	14.5818	14.4248	-293.78	855.581
3.436907	3.46724	3.49491	14.0307	14.2868	14.5944	14.4350	-293.56	855.581
3.453211	3.47268	3.50303	14.0240	14.2728	14.6195	14.4438	-293.82	855.581
3.464428	3.47509	3.50303	13.9971	14.2780	14.6363	14.4467	-293.91	855.581
3.481196	3.47358	3.50079	14.0092	14.2868	14.6474	14.4526	-293.78	855.581
3.497410	3.47690	3.50303	14.0469	14.3043	14.6474	14.4511	-293.56	855.581
3.521752	3.47751	3.50079	14.0644	14.3008	14.6586	14.4511	-293.78	855.581
3.539050	3.47570	3.49855	14.0563	14.2903	14.6586	14.4555	-293.56	855.581
3.555260	3.47237	3.49855	14.0455	14.2903	14.6474	14.4584	-293.82	855.581
3.571932	3.46875	3.49939	14.0133	14.3008	14.6363	14.4540	-293.56	855.581
3.588247	3.46724	3.49855	14.0200	14.2938	14.6363	14.4496	-293.82	855.581
3.604465	3.46966	3.49939	14.0321	14.2868	14.6363	14.4467	-293.82	855.581
3.621770	3.47449	3.50135	14.0052	14.2868	14.6139	14.4409	-294.20	855.581
3.637981	3.47811	3.49995	13.9971	14.3060	14.5804	14.4277	-293.94	855.581
3.654210	3.47932	3.49547	14.0079	14.3008	14.5693	14.4044	-294.01	855.581
3.670984	3.47328	3.49183	13.9931	14.3008	14.5749	14.3898	-293.82	855.581
3.687205	3.46845	3.48762	13.9648	14.2885	14.5916	14.3810	-293.82	855.581
3.703893	3.46633	3.48594	13.9595	14.2868	14.5972	14.3810	-293.56	855.581
3.727392	3.46633	3.48734	13.9447	14.2868	14.6084	14.4029	-293.69	855.581
3.745417	3.47207	3.49295	13.9756	14.2885	14.6251	14.4175	-293.82	855.581
3.762192	3.47388	3.49463	14.0133	14.2798	14.6419	14.4350	-293.94	855.581
3.778401	3.47811	3.49463	14.0509	14.2728	14.6474	14.4526	-293.94	855.581
3.794634	3.48234	3.49631	14.0832	14.2728	14.6363	14.4613	-293.82	855.581
3.811393	3.48174	3.49967	14.1101	14.2728	14.6251	14.4642	-293.78	855.581
3.827603	3.47449	3.49743	14.1114	14.2798	14.6084	14.4584	-293.56	855.581
3.843841	3.47237	3.49491	14.0792	14.2815	14.6028	14.4467	-293.56	855.581
3.860137	3.47841	3.49631	14.0079	14.2501	14.6042	14.4526	-293.91	855.581
3.876350	3.48536	3.49687	13.9810	14.2396	14.6251	14.4584	-293.82	855.581
3.893042	3.48929	3.49295	14.0092	14.2518	14.6377	14.4642	-293.91	855.581
3.909341	3.49442	3.49015	14.0186	14.2763	14.6432	14.4701	-293.82	855.581
3.932953	3.50107	3.49631	14.0509	14.2955	14.6307	14.4701	-293.78	855.581
3.951386	3.49865	3.50135	14.1061	14.3025	14.6195	14.4584	-293.69	855.581
3.967590	3.49170	3.50331	14.1155	14.2938	14.6084	14.4467	-293.78	855.581
3.983816	3.48204	3.50415	14.0671	14.2885	14.5930	14.4409	-293.94	855.581
4.000109	3.47207	3.49967	14.0186	14.2728	14.5804	14.4350	-293.82	855.581

## RANS-REGEN ENGINE TEST

EST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78

02:01:46

CAL DECK FILE NAME 'TR7046'

DIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WLO2-2	WH20P-2	WH20C-2	DEG F	PGOT	POJ	F-8	FCALB 31941B
INITS	LB-W	LB-W	LB-W	LB-W	PSIA	PSIA	LBS	PSIA
IEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	11/ 32
4.016335	3.46543	3.49407	14.0281	14.2675	14.5832	14.4277	-293.56	855.581
4.033017	3.46633	3.49183	14.0469	14.2780	14.5930	14.4234	-293.78	855.581
4.050306	3.47207	3.49407	14.0294	14.2745	14.5874	14.4190	-293.91	855.581
4.066535	3.47026	3.49295	14.0240	14.2815	14.5804	14.4131	-293.78	855.581
4.082829	3.46845	3.49631	14.0092	14.2868	14.5693	14.4044	-293.82	855.581
4.099054	3.47207	3.49911	13.9931	14.2833	14.5804	14.4044	-293.56	855.581
4.115287	3.47570	3.49883	13.9716	14.2728	14.6139	14.4175	-293.72	855.581
4.139810	3.47570	3.49631	13.9917	14.2606	14.6586	14.4409	-293.78	854.966
4.157461	3.47570	3.49631	14.0469	14.2868	14.6530	14.4467	-293.82	855.581
4.174128	3.47207	3.49667	14.0493	14.3235	14.6363	14.4350	-293.78	855.581
4.190362	3.46845	3.49799	14.0684	14.3288	14.6363	14.4307	-293.78	855.581
4.206576	3.46724	3.49743	14.0240	14.3008	14.6586	14.4365	-293.56	855.581
4.223347	3.46633	3.49407	14.0038	14.2745	14.6753	14.4467	-293.69	855.581
4.239568	3.46513	3.49407	14.0186	14.2815	14.6712	14.4467	-293.78	855.581
4.255793	3.46543	3.49491	13.9864	14.2868	14.6642	14.4511	-293.75	855.581
4.272083	3.46362	3.49463	13.9729	14.2868	14.6586	14.4496	-293.82	855.581
4.288316	3.46633	3.49407	14.0469	14.2903	14.6586	14.4350	-293.56	855.581
4.305995	3.47237	3.49631	14.1316	14.3060	14.6488	14.4146	-293.56	855.581
4.322292	3.47570	3.49855	14.1558	14.3148	14.6363	14.3942	-293.91	855.581
4.345886	3.47207	3.50191	14.0845	14.2938	14.6363	14.3942	-293.82	855.581
4.364027	3.46905	3.49911	13.9971	14.2728	14.6474	14.4117	-293.78	855.581
4.380067	3.47328	3.49939	14.0052	14.2728	14.6600	14.4321	-293.82	855.581
4.396773	3.47932	3.49855	14.0294	14.3008	14.6600	14.4467	-293.78	855.581
4.413065	3.48174	3.49967	14.0455	14.3183	14.6642	14.4584	-293.56	855.581
4.429289	3.48536	3.50191	14.0267	14.3148	14.6698	14.4818	-293.82	855.581
4.445999	3.48717	3.50191	14.0065	14.2938	14.6726	14.4818	-293.94	855.581
4.459292	3.48657	3.49995	14.0133	14.2903	14.6753	14.4934	-293.91	855.581
4.475519	3.48294	3.49995	14.0630	14.3043	14.6698	14.4876	-293.91	855.581
4.491816	3.48083	3.49855	14.0953	14.3095	14.6600	14.4745	-293.56	855.581
4.508037	3.48174	3.49911	14.0778	14.3148	14.6530	14.4599	-293.82	855.581
4.525257	3.47751	3.49855	14.0455	14.3008	14.6321	14.4409	-293.91	855.581
4.549775	3.46996	3.49659	13.9958	14.2658	14.6139	14.4175	-293.82	855.581
4.567357	3.47358	3.49995	13.9608	14.2483	14.6307	14.4175	-294.55	855.581
4.584017	3.48083	3.50359	14.0025	14.2413	14.6419	14.4307	-294.07	855.581
4.600319	3.48657	3.50415	14.0146	14.2588	14.6419	14.4467	-294.17	855.581
4.616543	3.48657	3.50079	14.0133	14.2728	14.6419	14.4642	-294.07	855.581
4.632838	3.48566	3.49967	13.9716	14.2868	14.6530	14.4876	-293.82	855.581
4.649069	3.48174	3.50303	13.9769	14.2868	14.6698	14.5051	-293.72	855.581
4.665257	3.47932	3.50387	14.0348	14.2868	14.6656	14.4978	-293.56	855.581
4.682027	3.47570	3.49855	14.0684	14.2868	14.6698	14.4818	-293.78	855.581
4.698242	3.47690	3.49351	14.0455	14.2938	14.6656	14.4584	-294.07	855.581
4.714943	3.47932	3.49099	14.0025	14.2938	14.6586	14.4277	-293.82	855.581
4.732229	3.48294	3.48847	14.0038	14.2868	14.6474	14.4175	-293.91	855.581
4.755739	3.49019	3.48847	14.0630	14.2728	14.6307	14.4175	-293.91	855.581
4.775669	3.48657	3.49183	14.1034	14.2815	14.6251	14.4175	-294.04	855.581
4.791971	3.47992	3.49491	14.1047	14.2868	14.6474	14.4234	-293.94	855.581
4.809175	3.47811	3.49995	14.0899	14.2763	14.6698	14.4350	-293.91	855.581
4.825946	3.47570	3.50191	14.0671	14.2815	14.6809	14.4350	-293.78	855.581
4.842157	3.47207	3.49967	14.0348	14.2868	14.6712	14.4277	-293.82	855.581

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WL02-1	WL02-2	WH20P-1	WH20P-2	WH20C-1	WH20C-2	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	POJ	F-B
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41
4.858348	3.46724	3.49547	14.0133	14.2833	14.6614	14.4263	-293.56	855.581	819.918	736.646	1527.87
4.875156	3.46724	3.49743	13.9917	14.2675	14.6530	14.4496	-293.78	855.581	821.613	738.489	1530.94
4.891383	3.47207	3.50079	14.0025	14.2658	14.6488	14.4467	-293.91	855.581	821.613	739.411	1532.37
4.907731	3.47449	3.50079	14.0307	14.2868	14.6377	14.4409	-293.82	855.581	819.918	738.489	1531.76
4.924898	3.47268	3.49547	14.0576	14.3060	14.6265	14.4584	-293.82	855.581	818.994	737.261	1530.53
4.941113	3.47117	3.49183	14.0576	14.3078	14.6307	14.4423	-293.56	855.581	818.840	737.261	1530.32
4.964158	3.46754	3.49743	14.0402	14.2868	14.6307	14.4496	-293.82	855.581	820.226	739.308	1531.96
4.982658	3.46905	3.50191	14.0240	14.2780	14.6195	14.4555	-294.07	855.581	820.226	739.922	1533.39
4.998888	3.47570	3.50527	14.0240	14.2780	14.6251	14.4584	-294.04	855.581	819.148	739.308	1532.17
5.015172	3.47751	3.50331	14.0415	14.2780	14.6307	14.4584	-293.91	855.581	818.070	738.489	1530.32
5.031388	3.47086	3.49743	14.0402	14.2868	14.6279	14.4584	-293.56	855.581	818.686	738.080	1531.14
5.048084	3.46724	3.49463	14.0240	14.2833	14.6251	14.4584	-293.43	855.581	817.761	738.489	1531.76
5.064372	3.46724	3.49295	14.0281	14.2938	14.6363	14.4526	-293.56	855.581	816.991	737.773	1530.94
5.080600	3.46482	3.49071	14.0307	14.2938	14.6474	14.4467	-293.56	855.581	815.913	736.851	1529.30
5.096908	3.46362	3.48847	14.0186	14.2885	14.6474	14.4409	-293.53	855.581	816.529	736.544	1529.10
5.113119	3.46241	3.49043	14.0133	14.2868	14.6363	14.4248	-293.56	855.581	817.145	737.670	1530.53
5.129349	3.46543	3.49239	14.0563	14.2955	14.5916	14.4058	-293.40	855.581	818.070	737.773	1531.76
5.146104	3.46845	3.49491	14.1074	14.2938	14.5609	14.3883	-293.56	855.581	819.610	738.489	1532.37
5.171566	3.46905	3.49631	14.0307	14.2728	14.5693	14.3956	-293.56	855.581	819.302	738.080	1531.76
5.190846	3.46845	3.49435	14.0415	14.2728	14.6042	14.4058	-293.56	855.581	819.148	737.670	1531.76
5.206885	3.46845	3.49491	14.0523	14.2728	14.6153	14.4029	-293.56	855.581	818.686	737.670	1531.35
5.223108	3.46875	3.49407	14.0186	14.2903	14.6139	14.4029	-293.56	855.581	818.070	736.851	1530.94
5.239796	3.46603	3.49183	13.9702	14.2903	14.6084	14.4044	-293.56	855.581	818.224	736.954	1530.94
5.257089	3.46241	3.49099	13.9232	14.2780	14.6028	14.4117	-293.82	855.581	818.686	738.080	1531.76
5.274307	3.46482	3.49183	13.9178	14.2623	14.6056	14.4248	-293.78	855.581	819.610	738.592	1533.39
5.292100	3.47449	3.49743	13.9702	14.2728	14.6167	14.4467	-294.04	855.581	820.534	739.308	1534.42
5.308307	3.48325	3.50639	14.0576	14.3025	14.6139	14.4511	-293.56	855.581	821.613	740.537	1535.85
5.324557	3.48657	3.51088	14.1155	14.3218	14.6028	14.4467	-293.56	855.581	821.613	740.946	1537.08
5.341287	3.48566	3.50976	14.0899	14.3165	14.6028	14.4467	-293.56	855.581	821.613	740.127	1535.03
5.357521	3.48657	3.50527	14.0684	14.2868	14.6042	14.4526	-293.02	855.581	820.072	739.308	1532.78
5.382492	3.48415	3.49911	14.0832	14.2658	14.6139	14.4584	-293.82	855.581	820.534	738.489	1533.39
5.401195	3.48325	3.50303	14.0671	14.2868	14.6028	14.4613	-293.78	855.581	820.688	739.308	1535.24
5.418211	3.48325	3.50219	14.0563	14.3060	14.5860	14.4584	-293.72	855.735	819.918	737.773	1532.78
5.434911	3.47932	3.49855	14.0402	14.3060	14.5818	14.4511	-293.56	855.581	819.148	738.080	1532.37
5.451209	3.47237	3.49631	14.0254	14.2868	14.5916	14.4482	-293.56	855.581	818.840	737.261	1531.96
5.455446	3.46845	3.49183	14.0240	14.2780	14.6153	14.4496	-293.82	855.581	820.534	737.670	1532.37
5.472218	3.47509	3.49295	14.0240	14.2833	14.6419	14.4467	-293.78	855.581	820.534	738.182	1534.21
5.488442	3.47841	3.49295	14.0133	14.2938	14.6502	14.4467	-293.56	855.581	821.151	737.670	1532.78
5.504645	3.47751	3.49295	14.0186	14.2938	14.6586	14.4526	-293.50	855.581	821.613	738.080	1534.21
5.521418	3.47962	3.49631	14.0240	14.3008	14.6642	14.4642	-293.56	855.581	822.383	738.899	1535.03
5.537638	3.47932	3.49911	14.0133	14.2868	14.6586	14.4672	-293.78	855.581	821.613	739.308	1535.24
5.553854	3.48204	3.50107	14.0092	14.2938	14.6488	14.4701	-293.56	855.581	821.305	738.899	1534.21
5.577378	3.48778	3.49743	13.9541	14.2938	14.6530	14.4642	-293.46	855.581	821.151	738.489	1534.42
5.596057	3.48899	3.49407	13.9420	14.2798	14.6586	14.4584	-297.73	856.196	818.686	737.261	1532.37
5.612190	3.48657	3.49071	13.9648	14.2903	14.6474	14.4467	-293.43	855.581	819.148	736.442	1532.17
5.628393	3.48294	3.48959	14.0106	14.3043	14.6195	14.4350	-293.56	855.581	819.148	735.725	1530.94
5.644621	3.48174	3.48734	14.0415	14.3218	14.5916	14.4277	-293.53	855.581	819.148	735.623	1529.51
5.661392	3.47932	3.48734	14.0576	14.3095	14.5749	14.4234	-293.78	855.581	820.534	736.442	1531.76
5.678612	3.47721	3.49071	14.0845	14.2955	14.5693	14.4234	-293.56	855.581	819.918	737.261	1532.37

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WLQ2-1		WH20P-1		WH20C-1		TOFM		PDV		F-A		FCALA 31941A		PGFT	
PARAMETER	WLQ2-2		WH20P-2		WH20C-2		DEG F	PGOT	PSIA	POJ	F-B		FCALB 31941B			
JNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W		PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA	
VEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25		10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
5.694849	3.47117	3.48903	14.0778	14.2833	14.5693	14.4263	-293.56	855.581	818.994	736.442	1531.76	1536.27	-55820	-1.3361	14.0464	
5.711074	3.46633	3.48734	14.0240	14.2763	14.5763	14.4350	-294.07	855.581	818.070	737.261	1532.17	1537.10	-55820	-1.5423	14.0464	
5.727292	3.46482	3.48847	13.9971	14.2728	14.5944	14.4423	-293.82	855.581	817.607	737.261	1532.37	1537.51	-55820	-1.3361	14.0464	
5.743994	3.46482	3.49015	13.9985	14.2728	14.6251	14.4642	-293.78	855.581	818.070	737.670	1533.39	1537.92	-55820	-1.1299	13.6362	
5.761282	3.46724	3.49183	14.0052	14.2693	14.6474	14.4818	-293.56	855.581	818.686	737.056	1530.94	1536.27	-1.1765	-1.3361	14.0464	
5.787296	3.48053	3.49631	14.0563	14.2903	14.6474	14.4891	-293.31	855.581	821.151	739.718	1535.03	1539.78	-97041	-92369	14.0464	
5.804641	3.47570	3.48622	14.1007	14.3043	14.6363	14.4818	-293.31	855.581	836.402	724.260	1515.38	1520.59	-55820	-1.1299	13.6362	
5.820956	3.32711	3.31814	14.0953	14.2973	14.6391	14.4715	-293.31	855.581	994.152	577.257	1088.05	1101.43	-97041	-92369	14.0464	
5.837165	2.77323	2.66709	14.0724	14.2780	14.6530	14.4745	-293.31	855.581	884.004	361.768	589.489	614.815	-97041	-71747	14.0464	
5.853934	2.01037	1.84823	14.0563	14.2745	14.6600	14.4730	-293.40	856.196	916.663	209.646	377.663	399.252	-55820	-92369	14.0464	
5.870153	1.43656	1.23836	14.0375	14.2938	14.6586	14.4701	-293.31	856.811	879.074	156.209	336.526	346.444	-55820	-71747	14.0464	
5.886383	1.13938	.903864	14.0254	14.3148	14.6377	14.4584	-293.31	856.811	852.577	147.610	317.901	321.072	-55820	-1.3361	14.0464	
5.903139	1.05603	.825985	14.0133	14.3113	14.6139	14.4438	-293.43	857.425	904.339	145.563	257.116	258.981	-1.3826	-71747	14.0464	
5.919349	1.03187	.858481	14.0348	14.2938	14.5916	14.4234	-293.56	858.040	820.843	134.200	185.894	189.052	-55820	-1.3361	14.0464	
5.936733	.982643	.866605	14.0361	14.2868	14.5595	14.4000	-293.56	858.040	923.442	120.380	140.254	144.289	-97041	-1.5423	14.0464	
5.952880	.981133	.832708	14.0052	14.2780	14.5302	14.3708	-292.76	858.194	827.313	108.812	120.606	122.836	-1.1765	-1.5423	14.0464	
5.969095	.994421	.825985	13.9810	14.2780	14.5079	14.3416	-293.40	858.348	914.198	98.0632	114.466	116.235	-55820	-92369	14.0464	
5.993067	.914692	.759030	13.9433	14.2728	14.4632	14.2876	-293.46	858.655	824.540	81.2746	107.303	107.984	-55820	-1.3361	14.0464	
6.010732	.837379	.773318	13.9460	14.2588	14.4395	14.2540	-293.40	859.270	912.966	70.6281	105.666	106.333	-55820	-1.3361	14.0464	
6.026943	.828923	.796570	13.9393	14.2378	14.4353	14.2438	-293.31	859.270	845.337	62.4385	102.391	103.033	-55820	-1.3361	14.0464	
6.043240	.819258	.785644	13.9501	14.2168	14.4353	14.2438	-293.40	859.424	892.939	56.3987	101.777	101.589	-55820	-92369	14.0464	
6.059461	.805970	.792928	13.9433	14.2168	14.4241	14.2423	-293.46	859.424	879.074	51.5873	101.777	102.208	-55820	-1.3361	14.2514	
6.076156	.788152	.824304	13.9312	14.2221	14.4241	14.2423	-293.40	859.424	850.113	47.6972	101.163	101.383	-55820	-1.3361	14.0464	
6.092462	.773354	.840832	13.9326	14.2168	14.4241	14.2438	-293.27	859.885	904.955	45.6498	101.163	101.589	-55820	-92369	14.0464	
6.109684	.756743	.805254	13.9326	14.2098	14.4186	14.2409	-293.31	859.885	829.932	45.2403	101.777	101.589	-55820	-1.3361	14.0464	
6.126990	.798118	.784523	13.9178	14.2063	14.4074	14.2482	-293.21	859.885	909.885	45.2403	102.391	102.208	-55820	-71747	14.0464	
6.143199	.825299	.744183	13.9124	14.2063	14.3962	14.2482	-293.31	859.885	859.356	45.3427	99.9352	99.9387	-55820	-92369	14.0464	
6.159425	.826507	.732977	13.9218	14.2098	14.4018	14.2365	-293.43	859.885	872.450	45.6498	101.163	101.589	-55820	-71747	14.0464	
6.176193	.802346	.762112	13.9272	14.2221	14.4130	14.2248	-293.53	860.500	893.093	45.6498	100.754	100.764	-97041	-92369	14.0464	
6.199626	.710537	.752027	13.9379	14.2098	14.4130	14.2190	-293.43	860.500	880.307	45.6498	100.959	101.383	-55820	-92369	14.0464	
6.218741	.690000	.737740	13.9393	14.2063	14.3823	14.2131	-293.31	860.500	881.539	45.6498	101.368	102.208	-55820	-1.3361	14.0464	
6.234885	.692416	.746984	13.9070	14.2098	14.3739	14.2073	-293.40	860.500	851.961	45.6498	100.754	101.383	-55820	-1.3361	14.0464	
6.251105	.651343	.761552	13.9164	14.2020	14.3795	14.2029	-293.53	860.500	909.885	45.6498	100.754	101.383	-55820	-1.3361	14.0464	
6.267799	.612687	.757630	13.9285	14.1958	14.3809	14.1956	-293.40	860.500	839.637	45.8546	99.9352	100.558	-97041	-92369	14.0464	
6.284096	.629901	.741101	13.9218	14.1941	14.3823	14.2015	-293.31	860.500	908.961	46.0593	100.754	100.558	-97041	-71747	14.0464	
6.301309	.679128	.673026	13.8963	14.2020	14.3962	14.2015	-293.31	858.040	870.448	46.4688	99.9352	99.9387	-97041	-71747	14.0464	
6.317082	.671880	.609714	13.9299	14.2203	14.3906	14.1927	-293.18	860.500	869.831	46.4688	101.368	101.383	-55820	-1.3361	14.0464	
6.334298	.633223	.585622	13.9622	14.2326	14.3697	14.1781	-293.27	860.653	901.874	46.4688	100.754	101.383	-55820	-1.1299	13.4312	
6.350523	.575238	.567132	13.9285	14.2343	14.3516	14.1620	-293.31	860.500	841.794	46.4688	99.9352	100.558	-97041	-1.3361	14.0464	
6.368284	.541414	.573856	13.9070	14.2221	14.3516	14.1547	-293.31	860.500	912.042	46.4688	100.140	100.558	-1.1765	-71747	14.0464	
6.384498	.556212	.582820	13.9272	14.2098	14.3516	14.1474	-293.27	860.653	859.972	46.1617	99.1165	98.9073	-55820	-1.3361	14.0464	
6.409724	.622955	.564891	13.9433	14.2028	14.3571	14.1489	-293.18	860.500	910.039	46.0593	99.9352	100.558	-1.1765	-71747	14.0464	
6.428078	.675504	.577217	13.9608	14.1888	14.3795	14.1547	-293.05	860.653	853.502	46.4688	99.1165	99.1136	-55820	-71747	14.0464	
6.444304	.692416	.578618	13.9541	14.1888	14.3823	14.1547	-293.31	860.653	895.558	46.4688	99.3212	99.7324	-97041	-1.3361	14.0464	
6.461082	.703288	.599069	13.9245	14.1888	14.3697	14.1562	-293.18	860.500	883.388	46.4688	98.2979	98.9073	-55820	-1.5423	14.0464	
6.468297	.696342	.580579	13.8801	14.1958	14.3585	14.1577	-293.56	860.653	858.431	46.5712	99.9352	99.7324	-97041	-71747	14.0464	
6.485528	.664632	.536597	13.8734	14.1958	14.3571	14.1577	-293.31	860.500	908.190	46.4688	98.7072	98.9073	-55820	-1.3361	14.0464	
6.502295	.599399	.478327	13.8895	14.2028	14.3599	14.1562	-293.27	860.653	848.572	46.5712	99.1165	98.9073	-55820	-1.1299	13.6362	
6.518502	.558326	.442469	13.8855	14.2098	14.3739	14.1664	-293.31	860.500	904.955	46.4688	99.3212	99.7324	-97041	-92369	14.0464	



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WLO2-2	WH20P-2	WH20C-2				FCALB 31941B	
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32
6.535746	.545038	.414734	13.9232	14.2063	14.3851	14.1781	-293.27	860.653
6.552017	.520877	.391763	14.0133	14.2221	14.3795	14.1781	-293.27	860.961
6.568238	.524501	.401848	13.9810	14.2221	14.3683	14.1810	-293.18	860.807
6.584923	.535374	.408011	13.9272	14.2168	14.3906	14.1971	-293.05	860.653
6.608440	.520273	.411653	13.9433	14.2168	14.4130	14.1942	-293.05	861.114
6.627255	.574030	.402688	13.9702	14.2308	14.3962	14.1839	-293.18	861.114
6.643740	.623559	.412493	13.9702	14.2221	14.3851	14.1839	-293.05	861.114
6.659971	.587318	.421458	13.9810	14.2098	14.3906	14.1898	-293.02	861.268
6.676184	.563158	.422859	13.9823	14.1976	14.4018	14.1942	-293.27	861.114
6.692962	.547454	.421738	13.9662	14.2063	14.4018	14.2029	-293.46	861.114
6.709173	.529333	.403529	13.9487	14.2221	14.3851	14.1898	-293.43	861.114
6.725873	.544132	.408011	13.9554	14.2221	14.3739	14.1839	-293.15	861.729
6.743165	.528427	.422859	13.9702	14.2028	14.3683	14.1898	-292.89	861.729
6.759392	.535374	.422578	13.9837	14.1818	14.3571	14.1912	-292.92	861.114
6.776088	.537790	.420898	13.9702	14.1888	14.3571	14.1912	-293.18	861.729
6.792395	.529635	.404649	13.9595	14.1958	14.3683	14.1839	-293.05	861.729
6.816306	.540206	.427061	13.9702	14.1993	14.3906	14.1839	-293.05	861.114
6.834177	.535676	.526792	13.9917	14.2063	14.3962	14.1839	-292.92	861.729
6.850145	.542622	.560409	13.9917	14.2098	14.3809	14.1781	-293.27	861.729
6.866844	.512421	.555927	13.9622	14.2203	14.3683	14.1781	-293.18	861.729
6.883137	.449604	.580579	13.9272	14.2168	14.3571	14.1898	-293.21	861.729
6.899350	.399169	.590384	13.9433	14.1958	14.3571	14.2015	-293.05	861.729
6.916046	.361419	.581420	13.9541	14.2168	14.3571	14.1942	-292.89	861.729
6.932338	.365043	.518107	13.9662	14.2308	14.3571	14.1781	-292.92	861.729
6.948565	.363835	.448632	13.9433	14.2221	14.3697	14.1839	-293.02	861.729
6.964864	.374707	.468522	13.9218	14.1958	14.3795	14.1898	-292.89	861.729
6.982072	.380747	.513345	13.9003	14.1836	14.3795	14.1971	-292.89	861.729
6.998277	.374707	.553685	13.9137	14.1906	14.3823	14.2073	-293.05	861.729
7.023712	.384371	.488692	13.9016	14.1888	14.4144	14.2423	-293.05	861.729
7.040283	.373499	.437146	13.8922	14.1941	14.4130	14.2511	-293.02	861.729
7.057971	.387995	.401288	13.8963	14.2028	14.4018	14.2540	-292.99	861.729
7.074273	.392827	.391202	13.9070	14.2168	14.3906	14.2438	-292.92	861.729
7.090503	.377123	.412493	13.9447	14.2168	14.3683	14.2277	-292.80	861.729
7.107796	.396753	.404649	13.9595	14.2028	14.3571	14.2190	-292.80	861.729
7.124024	.455644	.413894	13.9487	14.1888	14.3585	14.2161	-292.89	861.729
7.140260	.507589	.408011	13.9379	14.1818	14.3739	14.2073	-293.05	861.729
7.157030	.522085	.400167	13.9501	14.2028	14.3809	14.1942	-293.02	861.883
7.173255	.532958	.422859	13.9487	14.2168	14.3851	14.1839	-292.96	861.729
7.189499	.539300	.410252	13.9595	14.2063	14.3920	14.1869	-292.96	861.729
7.206246	.529333	.406610	13.9608	14.1993	14.3906	14.1912	-288.72	861.729
7.230369	.400075	.383639	13.9608	14.2098	14.3627	14.1942	-293.02	861.729
7.248786	.270817	.326209	13.9527	14.2168	14.3683	14.2015	-293.05	861.729
7.264995	.152431	.329851	13.9272	14.2133	14.4018	14.2219	-293.05	861.883
7.281225	.058205	.350862	13.9111	14.2063	14.4130	14.2321	-293.05	861.883
7.298000	.001730	.347500	13.9178	14.2116	14.4130	14.2365	-292.92	861.883
7.314204	.01911	.360947	13.9232	14.2221	14.3851	14.2380	-292.80	861.883
7.330416	.014716	.373273	13.9568	14.2221	14.3683	14.2365	-292.92	861.883
7.347187	.116190	.363188	13.9743	14.2168	14.3571	14.2321	-292.80	861.883
7.363414	.187463	.374394	13.9595	14.1941	14.3683	14.2307	-292.70	862.037

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PGFT
PARAMETER	WLO2-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B	
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	11/ 32
	12/ 33	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
7.379744	.182631	.364589	13.9285	14.1818	14.3809	14.2321	-292.80	862.037
7.395945	.117398	.355344	13.9070	14.1836	14.4032	14.2365	-292.89	862.190
7.412216	.049749	.306039	13.9272	14.1941	14.4255	14.2307	-293.02	861.883
7.435035	.003844	.217514	13.9178	14.1941	14.4353	14.2131	-292.89	861.883
7.451013	.334045	.230961	13.9084	14.1958	14.4241	14.2015	-292.80	861.883
-35992.535	.058205	.195662	13.9070	14.2028	14.4130	14.1898	-292.76	862.037
-35992.519	.114076	.202386	13.8801	14.1888	14.4144	14.1927	-292.54	861.883
-35992.503	.189880	.222556	13.8505	14.1713	14.4018	14.1971	-292.67	862.037
-35992.486	.172363	.191180	13.8411	14.1678	14.3697	14.1927	-292.76	862.037
-35992.470	.101694	.215273	13.8519	14.1696	14.3516	14.2015	-292.92	862.037
-35992.453	.040085	.287549	13.8680	14.1643	14.3516	14.2044	-292.92	861.883
-35992.437	.006260	.327330	13.9541	14.1661	14.3599	14.2073	-292.92	861.883
-35992.421	.030421	.329571	14.0348	14.1836	14.3739	14.2073	-292.80	861.883
-35992.405	.116190	.316124	14.0025	14.1888	14.3809	14.2131	-292.92	862.037
-35992.387	.186557	.299035	13.9339	14.1888	14.3795	14.2073	-292.80	861.883
-35992.363	.172061	.274663	13.9070	14.1888	14.3795	14.2015	-292.80	861.883
-35992.344	.089614	.206308	13.9003	14.1888	14.3920	14.1942	-292.80	862.344
-35992.328	.034045	.186978	13.9433	14.1976	14.3906	14.1839	-293.02	862.344
-35992.312	.005052	.237964	14.0402	14.2133	14.3851	14.1664	-292.89	862.190
-35992.295	.040085	.406610	14.0240	14.2098	14.3809	14.1664	-292.96	861.883
-35992.278	.108942	.467682	13.9756	14.1941	14.3795	14.1737	-292.80	861.883
-35992.262	.111358	.409132	13.9595	14.1923	14.3739	14.1839	-292.92	862.037
-35992.245	.067265	.275783	13.9487	14.2028	14.3906	14.2044	-292.67	861.883
-35992.229	.026797	.137673	13.9393	14.2168	14.4130	14.2190	-292.67	862.344
-35992.212	.003542	.043825	13.9379	14.2168	14.4130	14.2263	-292.80	862.190
-35992.196	-.00522	-.00212	13.9393	14.2221	14.3906	14.2161	-293.05	861.883
-35992.179	-.00642	-.01557	13.9662	14.2221	14.3739	14.2015	-292.92	862.037
-35992.155	-.00552	-.01781	13.9608	14.2098	14.3571	14.1912	-292.92	861.883
-35992.137	-.00461	-.01557	13.9272	14.2098	14.3404	14.1898	-292.80	862.344
-35992.118	-.00340	-.01332	13.8963	14.2046	14.3460	14.1927	-292.89	862.344
-35992.102	-.00340	-.01108	13.8788	14.2028	14.3613	14.2073	-292.70	862.344
-35992.086	-.00220	-.00968	13.9003	14.2098	14.3809	14.2131	-292.80	862.037
-35992.069	-.00220	-.00772	13.9823	14.2308	14.3962	14.2131	-292.89	862.190
-35992.052	-.00189	-.00660	14.0240	14.2326	14.3906	14.2044	-292.76	862.344
-35992.036	-.00189	.047187	14.0186	14.2168	14.3739	14.1927	-292.67	862.344
-35992.019	-.00159	.130109	14.0146	14.2028	14.3571	14.1927	-292.54	862.037
-35992.003	-.00099	.125627	14.0133	14.1818	14.3474	14.1942	-292.54	862.037
-35991.987	-.00099	.075201	13.9769	14.1748	14.3488	14.2015	-292.51	862.344
-35991.970	.000220	.029538	13.9379	14.1678	14.3516	14.2131	-292.54	861.883
-35991.946	.000220	.000683	13.9232	14.1748	14.3516	14.2161	-292.76	862.037
-35991.926	.000220	-.00408	13.9272	14.1888	14.3571	14.2161	-292.92	862.344
-35991.910	.000220	-.00380	13.9285	14.2063	14.3585	14.2146	-292.80	862.344
-35991.893	-.00099	-.00408	13.9487	14.2186	14.3516	14.2131	-292.70	862.344
-35991.876	.000220	-.00212	13.9971	14.2168	14.3474	14.2015	-292.92	862.344
-35991.859	.000220	.061194	14.0038	14.2098	14.3627	14.1985	-293.05	861.883
-35991.843	.000220	.132630	13.9971	14.1941	14.3739	14.2029	-292.96	861.883
-35991.826	.000220	.121425	14.0442	14.1923	14.3795	14.2131	-292.80	862.190
-35991.810	.000220	.069878	14.0617	14.1923	14.4018	14.2248	-292.80	861.729
-35991.793	.000220	.027016	14.0886	14.2098	14.4130	14.2190	-292.80	862.344



## IRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WLO2-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PGFT
PARAMETER		WLO2-2		WH20P-2		WH20C-2									
UNITS	LB-W	LP-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	POJ	LBS	LBS	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
-35991.777	.000220	.005725	14.0617	14.2168	14.3962	14.2088	-292.54	861.883	585.758	46.5712	94.6140	94.7817	-.55820	-.71747	14.0464
-35991.761	.000220	-.00268	13.9608	14.2028	14.3795	14.2044	-292.80	861.883	580.828	46.4688	94.6140	94.7817	-.55820	-.71747	14.0464
-35991.735	.000220	-.00380	13.8640	14.1643	14.3795	14.2175	-292.80	861.883	572.818	46.4688	95.8419	95.6068	-.55820	-1.3361	14.0464
-35991.719	.000220	-.00380	13.8801	14.1748	14.3795	14.2248	-292.76	862.344	568.504	46.4688	96.2513	96.4319	-.55820	-.92369	14.0464
-35991.703	.000220	.014130	13.9003	14.2046	14.3906	14.2307	-292.64	862.344	563.574	46.4688	95.8419	96.4319	-.55820	-.71747	14.0464
-35991.686	.000220	.060633	13.9326	14.2308	14.4018	14.2307	-292.92	861.883	558.953	46.4688	94.8186	94.7817	-.55820	-.71747	14.0464
-35991.670	.000220	.065116	13.9326	14.2378	14.4018	14.2277	-292.76	861.883	554.947	46.5712	95.8419	95.6068	-.55820	-1.3361	14.0464
-35991.652	.000220	.041584	13.9178	14.2343	14.3920	14.2190	-292.51	861.883	550.634	46.5712	95.8419	95.6068	-.55820	-1.3361	14.0464
-35991.636	.000220	.018052	13.9299	14.2308	14.3795	14.2073	-292.54	861.883	546.629	46.5712	95.4326	94.9879	-.55820	-1.3361	14.0464
-35991.620	.000220	.004605	13.9487	14.2378	14.3683	14.1942	-292.54	861.883	542.623	46.6735	95.2280	95.6068	-.55820	-1.5423	14.0464
-35991.603	.000220	-.00128	13.9232	14.2221	14.3697	14.1971	-292.67	861.883	538.926	46.5712	95.8419	95.6068	-.55820	-.92369	14.0464
-35991.586	.000220	-.00212	13.9016	14.1941	14.3795	14.2131	-292.64	861.883	534.612	46.5712	95.8419	95.6068	-.55820	-.92369	14.0464
-35991.569	.000220	-.00212	13.9232	14.1888	14.3823	14.2248	-292.54	861.883	530.299	46.4688	95.2280	95.1942	-.55820	-1.3361	14.0464
-35991.552	.000220	-.00212	13.9299	14.1888	14.4018	14.2482	-292.80	862.037	525.677	46.4688	95.2280	94.9879	-.55820	-1.3361	14.0464
8.458779	.000220	-.00184	13.9326	14.2168	14.4130	14.2569	-293.18	861.883	519.823	46.0593	94.8186	94.9879	-.55820	-1.5423	14.0464
8.477248	.000220	-.00128	13.9366	14.2308	14.4018	14.2540	-293.18	862.344	516.434	46.1617	94.6140	94.9879	-.55820	-.71747	13.6362
8.493932	.000220	-.00128	13.9285	14.2221	14.3962	14.2409	-292.92	862.344	512.737	46.4688	95.2280	95.1942	-.55820	-.92369	14.0464
8.510226	.000220	-.00128	13.9379	14.2133	14.3864	14.2307	-292.80	861.883	509.656	46.4688	95.0233	94.7817	-.55820	-.92369	14.0464
8.526446	.000220	-.00128	13.9702	14.2098	14.3739	14.2161	-292.73	862.037	506.267	46.4688	94.2046	94.7817	-.55820	-1.5423	14.0464
8.543230	.000220	-.00128	13.9595	14.1958	14.3697	14.2073	-292.64	862.037	503.186	46.4688	94.6140	94.7817	-.55820	-.71747	14.0464
8.559432	.000220	.000123	13.9608	14.1923	14.3683	14.1942	-292.76	862.344	500.105	46.5712	95.8419	95.6068	-.55820	-.92369	14.0464
8.576649	.000220	.000123	13.9716	14.2098	14.3585	14.1839	-292.80	862.344	497.023	46.5712	95.8419	95.6068	-.55820	-.71747	14.0464
8.593436	.000220	.000123	13.9702	14.2098	14.3460	14.1708	-292.80	862.190	494.559	46.5712	94.8186	94.7817	-.35210	-1.1299	13.6362
8.609653	.000220	.000123	13.9541	14.2046	14.3404	14.1664	-290.47	862.344	491.478	46.5712	95.8419	94.9879	-.55820	-.92369	14.0464
8.626892	.000220	-.00128	13.9487	14.2098	14.3362	14.1606	-292.80	862.344	489.167	46.8783	94.8186	94.7817	-.35210	-1.3361	14.0464
8.643189	.000220	.000683	13.9716	14.2203	14.3292	14.1547	-292.80	862.344	486.240	46.8783	94.6140	94.7817	-.35210	-1.1299	14.0464
8.666739	.000220	.006857	13.9595	14.2063	14.3181	14.1693	-292.80	862.037	482.234	46.8783	94.4093	94.7817	-.55820	-.51125	14.0464
8.685171	.000220	.013767	13.9433	14.1818	14.3348	14.1898	-292.76	862.344	479.153	46.8783	94.8186	94.7817	-.35210	-.71747	14.0464
8.701379	.000220	.094251	13.9595	14.1783	14.3571	14.2073	-292.80	862.344	476.380	46.8783	94.2046	93.9565	-.55820	-.92369	14.0464
8.717589	-.00099	.043825	13.9554	14.1888	14.3795	14.2146	-292.92	862.344	473.607	46.8783	94.8186	94.9879	-.55820	-.92369	14.0464
8.734351	.000220	.013569	13.9205	14.1906	14.4130	14.2248	-292.54	862.190	470.526	46.7759	94.2046	94.7817	-.14599	-.71747	14.0464
8.750574	.000220	.064555	13.9218	14.1888	14.4465	14.2307	-292.76	862.190	468.062	46.7759	94.2046	94.7817	-.35210	-1.3361	14.0464
8.768808	.000220	.0133191	13.9433	14.1888	14.4465	14.2365	-292.73	862.190	464.980	43.1930	95.8419	95.6068	-.55820	-.71747	14.0464
8.785104	.000220	.0121144	14.0146	14.1923	14.4409	14.2482	-292.80	862.037	461.899	29.2706	95.2280	94.9879	-.55820	-1.3361	14.0464
8.801326	.000220	.069878	14.0671	14.2028	14.4409	14.2496	-292.76	861.883	459.126	18.1123	95.0233	94.9879	-.14599	-1.3361	14.0464
8.819030	.000220	.025616	14.0724	14.2168	14.4353	14.2394	-292.54	862.037	456.354	13.7104	95.8419	94.9879	-.55820	-.92369	13.6362
8.835327	.000220	.0004605	13.9971	14.2221	14.4186	14.2190	-292.67	862.344	453.889	13.3009	94.2046	94.1628	-.55820	-1.3361	14.0464
8.851549	.000220	-.00380	13.9070	14.2221	14.3906	14.2044	-292.67	862.344	451.424	14.1199	95.0233	94.7817	-.55820	-.71747	14.0464
8.874589	.000220	-.00492	13.8734	14.2098	14.3571	14.1927	-292.54	862.037	448.959	14.5294	94.2046	94.1628	-.55820	-1.3361	14.0464
8.894086	.000220	-.00436	13.9057	14.1923	14.3488	14.1942	-292.54	862.344	446.494	14.6318	94.6140	94.7817	-.55820	-.71747	14.0464
8.910769	.000220	-.00380	13.9487	14.1941	14.3627	14.2102	-292.67	862.344	445.570	14.5294	94.2046	94.7817	-.55820	-.92369	14.0464
8.927072	.000220	-.00324	13.9769	14.1958	14.3795	14.2248	-292.89	862.344	444.029	14.5294	94.2046	94.1628	-.55820	-.71747	14.0464
8.943297	.000220	-.00268	13.9716	14.1958	14.3934	14.2365	-293.02	862.037	442.797	14.5294	95.0233	94.9879	-.55820	-.92369	14.0464
8.959992	.000220	-.00212	13.9568	14.2028	14.3962	14.2380	-292.80	862.037	440.948	14.5294	95.8419	95.6068	-.55820	-.71747	14.0464
8.976282	.000220	-.00212	13.9433	14.2168	14.3906	14.2307	-292.76	861.883	440.332	14.5294	94.2046	94.7817	-.55820	-1.3361	14.0464
8.992516	.000220	-.00268	13.9232	14.2116	14.3906	14.2307	-292.80	862.037	438.792	14.5294	94.2046	93.9565	-.55820	-1.3361	14.0464
9.008811	.000220	-.00156	13.9272	14.2028	14.3962	14.2307	-293.02	862.190	437.867	14.5294	94.2046	94.7817	-.55820	-.92369	14.0464
9.026032	.000220	-.00128	13.9393	14.2168	14.3962	14.2248	-292.80	862.037	436.173	14.5294	95.2280	95.1942	-.55820	-1.5423	14.0464
9.043255	.001428	-.00128	13.9487	14.2221	14.3920	14.2190	-292.80	862.037	435.402	14.5294	94.2046	93.9565	-.55820	-.71747	14.0464

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103 CALIBRATION PERFORMED 09-02-78 02:01:46 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	WLO2-1	WLO2-2	WH2OP-1	WH2OP-2	WH2OC-1	WH2OC-2	TOFM	PGOT	POV	POJ	F-A	F-B	FCALA	31941A	PGFT
PARAMETER	WLO2-1	WLO2-2	WH2OP-1	WH2OP-2	WH2OC-1	WH2OC-2	TOFM	PGOT	POV	POJ	F-A	F-B	FCALA	31941A	PGFT
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	19/ 49
9.060037	.000220	-.00128	13.9541	14.2168	14.3851	14.2190	-292.89	862.037	433.554	14.5294	93.5907	93.5440	-.97041	-.92369	14.0464
9.083439	.000220	.000123	13.9393	14.1941	14.3502	14.2161	-292.70	862.037	431.705	14.5294	94.2046	93.9565	-.55820	-1.5423	14.0464
9.102726	.000220	-.00128	13.8909	14.1976	14.3250	14.2088	-292.76	862.344	429.856	14.5294	94.6140	94.7817	-.55820	-1.3361	14.0464
9.118726	.000220	.000123	13.8519	14.1906	14.3404	14.2088	-292.67	862.344	428.316	14.5294	94.4093	94.7817	-.35210	-1.3361	14.0464
9.134954	.000220	-.00128	13.8640	14.1818	14.3683	14.2073	-292.76	862.190	427.083	14.5294	93.3860	93.9565	-.55820	-.92369	14.0464
9.151650	.000220	.000123	13.8734	14.1678	14.3906	14.2088	-292.80	862.037	425.543	14.5294	93.5907	93.3377	-.55820	-1.3361	14.0464
9.167948	.000220	.000123	13.8371	14.1748	14.3906	14.2073	-292.92	862.037	424.311	14.5294	94.4093	94.7817	-.55820	-1.3361	14.0464
9.184175	.000220	-.00128	13.8478	14.1801	14.3795	14.2015	-292.89	861.883	423.386	14.5294	95.0233	94.9879	-.55820	-1.3361	14.0464
9.200953	.000220	.000123	13.8949	14.2028	14.3585	14.1898	-292.80	861.883	422.154	14.5294	94.4093	94.7817	-.55820	-1.3361	14.0464
9.217023	.000220	.000123	13.9232	14.1888	14.3627	14.1810	-292.76	862.344	420.613	14.6318	94.2046	94.1628	-.55820	-1.3361	14.0464
9.226597	.000220	.000123	13.9326	14.1748	14.3697	14.1781	-292.76	861.883	419.535	14.5294	94.2046	94.1628	-.55820	-.71747	14.0464

END FILE

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFV-2	PFVD	PFJ	PGH20T	PH20-J	PH20-OUT	PC-1	PC-2	POJI	TFJ	TBL	TOJ	TAO	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169
-.183427	1548.83	1549.39	1554.20	14.5090	1119.55	1044.47	150.867	14.4501	14.6440	14.6759	83.0742	-273.46	79.3032	81.0792	77.6772
-.166688	1548.67	1548.92	1554.20	14.4060	1119.55	1043.25	151.503	14.4501	14.6440	14.6759	82.9804	-273.25	79.3370	81.2470	77.9805
-.150474	1548.22	1548.77	1554.20	14.4060	1119.55	1044.47	150.231	14.4501	14.6440	14.6759	83.0875	-273.19	79.4043	81.0792	78.0143
-.134243	1548.06	1548.77	1554.05	14.2000	1119.55	1048.16	152.935	14.5553	14.7474	14.6759	83.0742	-273.19	79.5728	80.8104	77.9131
-.117951	1548.06	1548.30	1554.05	14.2000	1119.34	1051.43	157.230	14.5553	14.6440	14.6759	83.0206	-273.19	79.5728	80.5751	78.1491
-.101732	1548.06	1548.77	1554.05	14.4060	1119.55	1050.41	161.048	14.4501	14.6440	14.6759	82.9536	-272.98	79.4380	80.8104	78.5196
-.085029	1548.06	1548.46	1554.05	14.2000	1119.55	1048.16	162.321	14.5553	14.6440	14.5706	82.8062	-273.25	79.4717	81.3814	78.3849
-.068744	1548.06	1548.61	1554.05	14.2000	1119.34	1047.34	159.775	14.5553	14.6440	14.5706	82.8598	-273.25	79.5728	81.3478	78.5533
-.052514	1548.06	1548.30	1554.05	14.4060	1119.34	1049.59	157.389	14.5553	14.7474	14.6759	83.0206	-273.52	79.5728	80.8104	78.6543
-.036225	1548.06	1548.77	1554.05	14.2000	1119.34	1049.79	156.753	14.4501	14.7474	14.6759	83.1277	-273.79	79.2021	80.8439	78.5196
-.020010	1548.06	1548.30	1554.05	14.2000	1119.34	1048.77	152.140	14.5553	14.7474	14.6759	83.1277	-274.06	79.4380	81.3478	78.7890
-.003786	1548.06	1548.30	1554.05	14.2000	1119.34	1046.31	145.777	14.4501	14.6440	14.5706	83.1277	-273.73	79.4380	81.8849	79.3610
.020170	1548.06	1548.46	1554.05	14.3030	1119.34	1044.47	145.777	14.4501	14.6440	14.5706	82.9804	-271.91	79.4380	80.7095	77.8458
.038251	1548.06	1548.46	1554.05	14.2000	1119.34	1047.34	145.936	14.4501	14.6440	14.5706	82.8732	-271.57	79.5728	81.0792	78.5533
.054851	1546.99	1547.37	1552.96	14.6120	1119.34	1048.16	146.572	14.4501	14.7474	21.7300	83.1947	-271.64	79.7411	81.0792	79.8992
.072156	1542.71	1543.79	1549.08	15.7451	1119.34	1047.34	144.504	14.5553	14.7474	51.7362	83.5563	-271.64	81.5913	81.7842	79.5966
.088382	1536.45	1537.57	1543.02	17.8053	1119.34	1047.95	148.799	14.5553	14.7474	192.713	83.7170	-271.64	81.2216	81.3814	79.0919
.105144	1529.12	1530.72	1535.57	19.6595	1119.34	1048.77	152.776	14.8710	14.7474	351.167	83.3822	-271.10	78.8988	81.1127	78.2502
.121366	1522.39	1523.88	1529.20	20.9986	1119.34	1049.59	156.435	14.8710	14.9540	422.339	83.0742	-271.03	76.4681	81.3814	77.9805
.137593	1515.67	1517.50	1522.37	22.5437	1119.34	1048.16	153.412	14.8710	14.7474	436.658	82.3773	-270.03	74.4709	81.0792	76.2602
.154363	1509.10	1510.35	1515.69	23.9859	1118.32	1047.13	154.844	14.8710	14.9540	430.236	82.0018	-270.03	73.5215	80.9112	76.9016
.170578	1503.60	1505.53	1510.41	24.3979	1119.34	1045.70	153.571	14.8710	15.0573	423.919	82.0018	-269.69	72.6729	81.7505	76.9016
.186792	1500.54	1502.11	1506.99	25.6340	1118.52	1046.31	153.890	14.8710	14.9540	420.971	82.2700	-269.36	71.9932	81.5157	76.5303
.203100	1499.78	1501.02	1506.21	26.0460	1119.34	1047.13	152.776	14.8710	14.8507	420.971	82.4310	-268.89	72.1292	82.2538	77.5761
.229554	1501.00	1502.11	1506.99	26.9731	1119.34	1049.59	152.140	14.9762	14.9540	423.498	82.0555	-268.35	71.1089	81.7505	77.7448
.247435	1502.22	1503.35	1508.23	27.6942	1119.34	1047.54	150.867	14.8710	14.9540	424.866	81.9481	-267.89	71.4492	81.2135	77.3738
.263742	1503.44	1503.97	1508.85	27.7972	1119.34	1047.54	157.230	14.8710	14.9540	426.024	81.7872	-267.08	70.9388	81.0792	77.3064
.279956	1504.06	1504.91	1509.94	28.2092	1118.52	1049.59	161.684	14.8710	14.9540	427.288	81.6262	-267.08	70.9047	80.8104	77.6099
.296642	1504.67	1505.06	1510.56	28.6213	1118.52	1049.59	161.207	14.8710	15.0573	427.920	81.3712	-266.82	70.8026	81.0792	77.2052
.312949	1505.28	1506.46	1511.34	29.0333	1118.52	1047.13	158.503	14.6605	14.9540	428.972	81.2639	-266.82	70.9047	81.0792	76.2264
.330164	1505.89	1507.08	1511.96	29.3423	1118.52	1047.95	163.116	14.8710	14.9540	429.815	81.1564	-266.55	70.5303	81.6500	76.7666
.346953	1506.50	1507.55	1512.58	29.3423	1118.52	1049.59	156.117	14.6605	14.7474	430.762	81.2370	-266.28	70.3599	82.6898	77.5424
.364171	1507.26	1508.33	1513.67	29.3423	1118.52	1046.31	150.231	14.8710	15.0573	431.920	81.0892	-266.08	70.0533	82.2875	78.0143
.380397	1507.88	1508.95	1513.82	29.3423	1118.73	1042.22	143.231	14.8710	14.9540	432.763	80.7670	-266.22	70.1215	81.7505	77.8458
.397167	1508.33	1509.57	1514.45	29.6514	1118.52	1043.04	148.958	14.6605	15.0573	434.131	80.5520	-265.75	68.9623	81.0792	76.6653
.414389	1508.95	1509.73	1515.07	29.6514	1118.52	1047.34	153.412	14.8710	15.0573	435.290	80.3773	-265.68	70.2237	80.6759	76.3953
.439780	1509.56	1510.82	1516.15	29.6514	1118.52	1050.41	159.298	14.6605	14.9540	436.658	80.2294	-265.22	69.8148	81.3478	77.5424
.454224	1510.78	1511.59	1516.46	29.5484	1118.73	1050.61	161.684	14.8710	14.9540	437.922	80.2294	-264.69	69.8148	81.3478	77.7109
.467006	1510.78	1512.06	1516.93	29.6514	1118.52	1049.79	159.775	14.8710	14.7474	439.080	80.0144	-264.42	69.6785	81.8849	78.3849
.483705	1511.24	1512.06	1517.55	29.6514	1119.34	1047.34	153.412	14.8710	14.8507	439.922	80.0682	-264.15	69.6104	81.3814	77.4413
.500000	1511.54	1512.84	1518.02	29.6514	1118.52	1043.86	146.254	14.8710	14.9540	440.764	80.0682	-264.42	69.4739	81.6163	78.6879
.517225	1512.00	1512.84	1518.17	29.6514	1118.52	1043.04	143.868	14.6605	14.9540	441.501	79.8665	-264.55	69.4058	81.2470	78.3849
.533918	1512.15	1513.30	1518.64	30.1664	1118.52	1045.50	154.685	14.8710	15.0573	442.449	79.8531	-264.69	69.4058	81.6163	78.5533
.551226	1512.15	1513.30	1518.64	31.0935	1118.52	1048.77	161.684	14.8710	14.8507	442.870	79.6379	-264.69	69.5421	81.6163	78.2838
.567442	1512.61	1513.30	1518.64	31.0935	1118.52	1049.59	159.775	14.8710	15.0573	443.712	79.5168	-264.95	69.8148	81.8849	77.8458
.585209	1512.61	1513.93	1519.10	30.5785	1117.70	1047.95	157.867	14.8710	15.0573	444.555	79.8531	-264.95	68.3138	82.1868	77.3064
.601426	1513.22	1514.08	1519.26	30.5785	1118.52	1045.50	151.026	14.4501	14.3341	444.976	79.4899	-265.15	46.6144	81.6163	76.7666
.618653	1510.78	1512.37	1516.77	35.5229	1118.52	1046.31	158.503	13.2925	13.4041	445.502	80.2294	-264.62	-23.519	82.5222	78.2502
.645075	1460.35	1464.16	1219.23	412.640	1118.52	1047.75	162.321	132.732	130.367	439.817	80.5655	-264.89	-196.89	82.6898	81.2095

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PEV-1		PFVD		PGH2OT		PH20-OUT		PC-2		TFJ		TOJ		TIN	
PARAMETER	PFV-2		PFJ		PSIA		PH20-J		PC-1		POJI		TBL		TAO	
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169	
.662703	1445.53	1448.60	989.385	820.763	1118.32	1045.50	162.321	396.656	389.917	435.290	75.7551	-265.09	-261.06	82.2875	79.7311	
.679361	1450.88	1452.65	975.874	1026.16	1118.52	1043.86	168.684	557.873	552.446	434.763	79.4765	-263.62	-267.45	81.5828	78.6543	
.695685	1459.59	1461.05	1032.87	1089.51	1118.52	1040.59	162.480	609.437	607.311	436.132	83.6098	-264.69	-260.80	81.3478	77.8458	
.711890	1466.31	1466.64	1080.86	1096.93	1118.52	1038.95	155.480	612.174	612.168	437.922	85.4819	-264.69	-257.11	81.2135	77.8458	
.728191	1470.59	1471.62	1105.08	1093.74	1118.52	1039.77	149.594	605.965	606.588	439.185	85.6423	-264.89	-256.06	81.8849	78.9573	
.744417	1472.88	1474.11	1113.16	1093.33	1118.32	1043.86	150.867	603.018	603.592	440.343	85.0009	-265.15	-258.49	84.2975	80.1345	
.760633	1474.41	1475.20	1115.02	1096.00	1118.11	1048.16	156.435	603.755	603.902	441.186	84.3591	-265.15	-260.80	86.8365	80.7394	
.778392	1475.18	1475.98	1115.33	1098.58	1117.90	1047.34	154.685	604.807	604.935	441.396	83.9311	-264.62	-262.12	89.9001	80.1682	
.794627	1475.33	1476.13	1116.11	1099.51	1117.90	1044.47	154.685	604.807	605.245	439.817	83.1277	-264.69	-263.45	93.1185	79.6974	
.810847	1475.33	1475.98	1116.11	1099.81	1117.90	1044.47	154.685	604.597	604.832	378.857	82.8598	-264.62	-264.52	96.6217	78.6879	
.827136	1474.72	1475.98	1116.11	1099.40	1118.32	1046.52	158.662	605.439	605.658	268.939	82.8598	-264.95	-265.98	102.342	79.6974	
.850719	1474.11	1475.20	1115.64	1099.20	1117.90	1044.47	155.162	605.018	604.935	149.862	82.7526	-265.15	-266.32	109.099	79.5966	
.871997	1474.26	1475.20	1115.02	1098.58	1117.90	1043.86	154.685	605.228	605.245	104.379	82.8598	-264.62	-266.98	114.029	79.7648	
.888282	1474.11	1475.04	1114.87	1098.17	1117.70	1044.47	153.412	606.175	606.072	85.9538	82.5248	-264.69	-267.92	118.192	78.1491	
.904500	1473.65	1474.73	1114.24	1097.65	1117.70	1046.31	156.594	606.070	606.175	75.2148	82.4846	-264.49	-268.79	121.759	77.7408	
.920802	1473.19	1474.11	1113.78	1097.34	1117.90	1047.95	161.525	606.281	606.175	67.8448	82.4846	-264.15	-270.13	125.855	79.8992	
.937015	1472.88	1473.49	1113.62	1096.93	1117.70	1047.95	166.139	606.386	606.175	62.6859	82.6454	-263.89	-271.27	129.202	79.6974	
.954249	1472.43	1473.49	1113.16	1096.52	1117.70	1044.88	161.048	606.175	605.762	59.2114	82.3773	-265.15	-271.27	131.458	79.7983	
.971021	1472.27	1473.49	1113.00	1096.00	1118.11	1041.41	156.594	606.386	606.072	56.7899	82.2700	-264.15	-270.13	134.026	78.7890	
.987250	1471.66	1473.49	1112.38	1095.69	1117.70	1041.41	161.366	606.281	606.072	55.0000	82.2969	-264.15	-270.87	136.397	78.7890	
1.003952	1471.66	1472.71	1112.07	1094.97	1117.70	1046.52	164.866	606.281	606.072	52.8943	82.0957	-264.15	-271.74	138.668	79.9329	
1.020244	1471.05	1472.24	1111.76	1094.36	1117.70	1049.59	167.570	605.860	605.245	51.6309	81.6262	-264.15	-272.28	141.185	79.2266	
1.037465	1470.44	1472.24	1111.76	1093.63	1117.08	1047.13	160.253	605.018	604.315	49.1041	81.8409	-264.15	-272.82	144.666	82.2830	
1.060503	1470.13	1471.62	1110.67	1093.22	1117.70	1039.77	151.026	605.018	604.418	47.1037	81.9481	-264.02	-273.09	146.324	82.3835	
1.078996	1469.98	1471.00	1110.36	1092.81	1117.70	1039.97	147.686	604.702	604.418	45.6297	81.7872	-264.15	-273.56	146.043	79.8656	
1.095207	1469.98	1471.00	1109.90	1092.40	1117.70	1045.50	159.775	604.281	603.592	44.4715	81.7872	-263.62	-273.90	146.949	79.8992	
1.111976	1469.52	1470.38	1109.90	1091.99	1117.70	1048.77	167.411	604.597	604.005	43.2081	81.5726	-263.42	-274.17	147.824	80.3025	
1.128212	1469.37	1470.53	1109.43	1091.57	1117.70	1048.16	168.843	605.439	604.522	42.1553	81.5726	-263.36	-274.98	148.448	80.0337	
1.145898	1469.22	1470.22	1109.27	1091.57	1117.70	1043.86	163.116	605.965	605.245	41.5236	81.6262	-263.62	-275.10	149.694	79.3274	
1.163195	1469.37	1470.38	1109.27	1091.27	1116.88	1042.22	162.321	605.860	604.935	40.5760	81.5189	-263.09	-274.92	150.099	79.1256	
1.179414	1469.83	1470.53	1108.96	1091.27	1117.70	1043.86	165.820	604.597	604.005	40.2601	81.4115	-263.09	-274.92	150.317	79.1929	
1.196104	1469.83	1471.00	1108.81	1091.06	1117.70	1046.31	167.570	605.018	604.418	40.2601	81.3712	-263.36	-274.98	151.313	79.2266	
1.212410	1469.98	1471.00	1108.81	1091.27	1117.70	1045.50	162.480	605.544	604.935	40.2601	81.1564	-263.36	-277.71	151.126	78.5196	
1.228625	1470.29	1471.00	1108.65	1091.06	1116.88	1043.04	157.230	604.807	604.108	39.9443	81.0892	-263.09	-274.98	151.841	79.5966	
1.245921	1470.44	1471.31	1108.65	1090.75	1117.08	1043.04	163.593	604.597	604.418	39.7337	81.0087	-263.03	-275.99	152.804	80.4034	
1.269897	1469.98	1471.16	1108.34	1090.44	1116.88	1044.47	157.867	604.176	604.005	39.8390	81.1429	-263.09	-276.27	152.339	79.1929	
1.289285	1470.13	1471.00	1108.19	1090.75	1116.88	1043.04	150.867	605.228	604.832	39.8390	80.8073	-263.09	-276.47	152.463	79.3274	
1.306053	1470.13	1471.00	1108.03	1090.44	1116.88	1043.04	151.026	605.018	604.418	39.8390	80.7133	-263.09	-275.79	153.301	79.5966	
1.322273	1469.98	1471.00	1107.88	1089.93	1116.88	1043.25	150.072	604.386	604.418	39.8390	80.3370	-263.09	-276.33	153.922	79.7648	
1.338503	1470.44	1471.16	1107.57	1089.93	1116.88	1043.86	151.503	604.176	604.005	39.8390	80.4446	-263.09	-275.99	154.046	79.0583	
1.355257	1469.98	1471.00	1107.41	1089.51	1116.88	1043.86	147.686	604.176	604.418	39.8390	80.4446	-263.03	-276.88	154.046	77.8458	
1.371478	1469.98	1471.00	1107.41	1089.31	1116.88	1043.04	147.049	604.702	604.418	39.8390	80.2429	-263.09	-277.09	153.922	77.8795	
1.387730	1469.83	1471.00	1107.41	1089.21	1116.88	1044.06	151.344	605.018	604.522	39.8390	80.2294	-263.09	-277.02	154.046	78.8227	
1.405017	1469.83	1471.00	1107.41	1089.10	1116.88	1043.86	154.685	605.123	604.832	39.8390	80.1219	-263.03	-277.43	154.914	80.3025	
1.421210	1469.83	1471.00	1106.95	1089.10	1116.67	1043.86	150.867	605.439	605.245	39.8390	79.9472	-263.03	-277.43	154.914	79.0583	
1.437902	1469.83	1471.00	1107.41	1089.51	1116.26	1044.47	152.140	605.860	605.555	39.6284	79.6917	-263.03	-277.64	156.431	80.0337	
1.454209	1469.83	1471.00	1106.95	1088.79	1116.26	1044.06	151.026	605.965	605.762	39.5231	79.6917	-263.03	-277.84	156.276	78.9236	
34169.4688	1469.83	1471.00	1106.95	1088.69	1116.26	1041.41	153.412	605.439	605.348	39.6284	80.0682	-263.09	-277.78	156.586	79.7648	
34169.4874	1469.98	1471.00	1106.79	1088.69	1116.26	1044.47	164.071	605.860	606.072	39.5231	80.2833	-263.09	-279.99	155.688	79.4620	

1-1.46

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
34169.5035	1469.98	1471.00	1106.95	1088.69	1116.26	1047.13	167.888	605.860
34169.5197	1470.13	1471.00	1106.95	1088.69	1116.26	1046.31	168.684	605.544
34169.5360	1470.44	1471.62	1106.79	1088.69	1116.26	1043.86	169.479	605.018
34169.5532	1470.44	1471.62	1106.79	1088.38	1116.26	1046.31	171.229	605.333
34169.5699	1470.44	1471.62	1106.48	1088.28	1116.26	1043.86	161.048	605.228
34169.5862	1470.44	1471.62	1106.32	1087.87	1116.26	1039.77	154.208	605.439
34169.6025	1470.13	1471.00	1106.17	1087.66	1116.05	1039.77	158.503	605.439
34169.6198	1469.98	1471.62	1106.17	1087.66	1116.05	1043.86	163.593	605.860
34169.6360	1470.13	1471.00	1106.17	1087.76	1116.05	1045.50	162.957	606.386
34169.6522	1469.98	1471.00	1106.17	1087.66	1116.26	1043.86	162.480	605.439
34169.6758	1470.44	1471.16	1105.70	1087.56	1116.26	1043.86	163.752	605.439
34169.6941	1470.44	1471.62	1105.70	1087.56	1116.05	1044.47	168.684	605.860
34169.7109	1470.44	1471.62	1106.17	1087.45	1116.26	1044.47	170.116	606.701
34169.7272	1470.59	1471.62	1106.17	1087.56	1116.05	1045.50	171.229	606.701
34169.7435	1470.44	1471.62	1106.17	1087.45	1116.05	1044.27	170.116	606.281
34169.7608	1470.44	1471.62	1106.17	1087.45	1116.05	1041.41	161.048	606.701
34169.7770	1471.05	1472.24	1106.17	1087.45	1116.05	1041.61	161.684	606.281
34169.7932	1474.11	1475.04	1106.17	1087.97	1116.05	1043.86	159.775	606.386
34169.8100	1478.39	1479.09	1107.57	1089.51	1116.05	1041.41	149.594	605.860
34169.8262	1482.66	1482.82	1109.43	1091.06	1116.05	1040.59	156.117	606.491
34169.8429	1484.50	1485.15	1111.14	1092.60	1116.05	1046.52	167.570	607.122
34169.8592	1484.50	1485.93	1111.76	1093.43	1116.05	1047.95	170.593	606.807
34169.8857	1482.82	1484.06	1112.38	1093.74	1116.05	1042.22	166.775	606.807
34169.9021	1482.66	1483.44	1112.07	1093.22	1116.05	1044.06	167.729	607.122
34169.9184	1481.44	1482.82	1111.91	1093.22	1116.05	1046.31	162.321	606.701
34169.9346	1480.83	1481.58	1111.76	1092.60	1116.05	1041.41	157.230	606.701
34169.9509	1479.91	1480.95	1111.14	1092.09	1116.05	1038.34	153.571	606.386
34169.9681	1479.30	1480.64	1111.14	1091.68	1116.05	1041.41	158.662	606.281
34169.9844	1479.00	1480.02	1110.52	1091.57	1116.05	1042.22	155.480	607.122
34170.0021	1478.39	1479.24	1109.90	1091.27	1116.05	1043.04	158.503	607.122
34170.0183	1477.77	1479.09	1109.43	1090.96	1116.05	1045.70	168.047	606.701
34170.0347	1477.16	1478.62	1108.96	1090.34	1116.05	1047.13	163.593	606.701
34170.0519	1476.70	1478.47	1108.81	1089.93	1116.05	1043.04	155.639	606.281
34170.0691	1476.55	1477.69	1108.34	1089.62	1116.05	1039.77	152.140	606.070
34170.0924	1475.48	1476.75	1107.57	1089.21	1116.05	1043.04	149.594	606.175
34170.1107	1475.33	1476.60	1107.57	1089.10	1116.05	1043.86	150.390	606.070
34170.1269	1474.87	1476.60	1107.41	1088.48	1116.05	1043.04	151.344	606.070
34170.1432	1474.72	1475.98	1106.79	1087.97	1116.05	1043.04	152.299	606.175
34170.1594	1474.72	1475.35	1106.48	1087.66	1116.05	1041.41	154.685	605.860
34170.1761	1474.41	1475.35	1106.17	1087.56	1116.05	1040.59	153.412	605.965
34170.1924	1474.26	1475.98	1106.17	1087.56	1116.05	1043.04	161.684	606.701
34170.2086	1474.72	1475.67	1106.17	1087.66	1116.05	1046.31	173.297	606.701
34170.2249	1474.41	1475.20	1106.17	1087.45	1116.05	1046.31	176.956	606.175
34170.2411	1474.26	1475.20	1106.17	1087.45	1116.05	1043.86	176.479	606.070
34170.2584	1474.26	1475.20	1106.17	1087.45	1115.23	1041.61	170.116	607.122
34170.2751	1474.11	1475.20	1106.32	1087.56	1116.05	1043.25	171.388	608.385
34170.2986	1474.11	1475.20	1106.32	1087.66	1116.05	1044.06	167.411	607.543
34170.3180	1474.26	1475.20	1106.17	1087.45	1116.05	1040.79	161.048	606.701
34170.3348	1474.41	1475.20	1106.17	1087.45	1116.05	1039.77	161.207	606.701

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFV-2	PFV-3	PFV-4	PGH20T	PH20-J	PH20-OUT	PC-1	PC-2	POJI	TEJ	TBL	TOJ	TAO	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169
34170.3510	1474.11	1475.20	1106.17	1087.04	1116.05	1040.79	158.662	606.701	606.588	14.5706	77.1053	-252.08	-280.41	156.895	78.5196
34170.3677	1474.11	1475.20	1105.70	1087.14	1116.05	1043.04	162.321	606.175	606.175	14.3600	76.8355	-252.08	-280.48	156.555	78.3849
34170.3840	1474.11	1475.20	1105.55	1087.04	1116.05	1044.47	166.298	605.439	605.762	14.5706	76.7276	-253.05	-280.48	156.276	78.2502
34170.4002	1474.11	1475.20	1105.08	1086.73	1115.23	1045.50	171.229	605.439	605.348	14.5706	76.8355	-251.82	-280.97	156.771	78.7890
34170.4169	1474.11	1475.20	1105.24	1086.63	1116.05	1044.06	169.956	606.070	606.175	14.5706	76.9164	-251.56	-280.76	156.771	79.0919
34170.4332	1474.11	1475.20	1105.55	1087.04	1116.05	1043.04	169.479	605.860	606.072	14.3600	76.8895	-251.56	-278.95	156.648	78.6543
34170.4494	1474.11	1475.20	1105.55	1087.04	1116.05	1040.59	161.684	605.439	605.555	14.5706	76.9975	-251.37	-281.04	156.895	79.0583
34169.4662	1474.11	1475.04	1105.24	1086.73	1114.82	1040.59	163.593	606.070	606.072	14.5706	76.8895	-251.30	-281.32	156.802	79.1256
2.467377	1474.11	1475.20	1105.08	1086.63	1114.61	1043.86	167.411	606.175	606.175	14.3600	76.6735	-252.53	-281.25	157.390	80.5378
2.490895	1474.11	1475.04	1105.24	1086.32	1114.82	1043.04	167.411	606.701	606.898	14.3600	76.6735	-254.02	-281.32	157.730	79.8656
2.509510	1474.11	1475.20	1105.24	1086.63	1114.61	1041.41	166.298	607.122	607.311	14.5706	76.4846	-253.63	-281.32	157.266	78.7890
2.526587	1474.11	1475.20	1105.55	1086.84	1115.23	1043.86	167.411	607.543	607.415	14.5706	76.2955	-252.92	-281.32	157.390	78.9236
2.543277	1474.11	1475.20	1105.39	1087.04	1114.61	1045.50	166.139	607.122	607.311	14.2547	76.2414	-252.34	-281.53	157.390	78.2502
2.559583	1474.11	1475.20	1105.39	1086.63	1114.82	1041.61	156.753	606.701	606.898	14.4653	76.2414	-252.01	-281.25	156.771	77.4413
2.575813	1474.11	1475.20	1105.08	1086.63	1114.61	1037.31	153.412	605.860	605.762	14.5706	76.2955	-251.56	-281.60	156.276	76.9690
2.592118	1474.26	1475.20	1104.93	1086.22	1114.82	1040.59	162.321	605.860	606.072	14.5706	76.4575	-251.75	-281.53	156.555	78.7890
2.608347	1474.26	1475.20	1104.93	1086.32	1114.61	1046.31	172.502	606.281	606.175	14.5706	76.4575	-251.56	-281.88	156.771	78.9236
2.624544	1474.11	1475.20	1105.08	1086.32	1114.61	1047.95	175.683	606.701	606.588	14.5706	76.3496	-251.04	-281.60	157.297	78.3849
2.641307	1474.11	1475.20	1105.55	1086.32	1114.61	1043.86	176.320	606.807	606.898	14.5706	76.2414	-251.04	-281.88	157.513	78.5196
2.657529	1474.11	1475.20	1105.24	1086.63	1115.23	1040.59	171.865	606.281	606.382	14.5706	76.2010	-252.08	-281.88	157.637	79.0583
2.674757	1474.11	1475.20	1105.08	1086.63	1115.23	1040.59	171.229	606.701	606.485	14.5706	76.1874	-255.20	-282.23	157.266	79.1929
2.698299	1474.26	1475.35	1105.55	1086.63	1114.61	1043.25	171.229	607.543	607.311	14.5706	76.1874	-255.65	-282.23	156.307	78.2502
2.718986	1474.26	1475.20	1105.55	1087.04	1114.61	1043.86	172.661	607.754	607.725	14.1495	75.9713	-254.41	-282.23	156.895	77.5424
2.735121	1474.26	1475.20	1105.70	1087.04	1114.61	1040.79	163.752	607.649	607.725	14.3600	75.9713	-253.37	-282.23	157.142	78.6879
2.751329	1474.26	1475.20	1105.55	1087.04	1114.61	1039.77	161.207	606.701	606.898	14.5706	75.9713	-253.05	-281.88	157.266	78.7890
2.767561	1474.26	1475.20	1105.24	1086.63	1115.23	1042.22	166.775	605.860	606.072	14.3600	75.7011	-252.85	-282.23	157.266	78.5870
2.784333	1474.26	1475.20	1105.08	1086.42	1114.82	1044.47	167.570	606.175	606.382	14.5706	75.7551	-252.59	-282.44	156.771	77.7448
2.800543	1474.26	1475.20	1105.08	1086.22	1114.41	1044.47	171.229	606.912	606.898	14.5706	75.8092	-252.53	-282.44	157.822	78.7890
2.816769	1474.26	1475.35	1105.08	1086.11	1114.41	1045.50	170.593	607.122	607.208	14.5706	75.8092	-252.08	-282.37	158.008	79.5966
2.833055	1474.26	1475.20	1105.24	1086.22	1114.61	1043.04	161.048	606.701	606.382	14.5706	75.7551	-252.59	-282.44	157.266	79.0583
2.849279	1474.11	1475.04	1104.93	1086.32	1114.61	1037.31	153.890	606.701	606.382	14.5706	75.7551	-253.37	-282.30	156.369	78.0143
2.865975	1474.11	1475.04	1104.93	1086.11	1114.61	1036.50	151.663	605.860	605.658	14.5706	75.5930	-253.63	-282.23	155.781	77.4413
2.882272	1474.11	1475.04	1104.46	1085.81	1114.41	1040.59	160.412	605.860	606.072	14.5706	75.5389	-253.11	-282.23	156.152	77.3064
2.906154	1474.11	1475.04	1104.31	1085.81	1114.61	1045.50	166.139	605.544	605.658	14.5706	75.3767	-252.05	-282.44	156.029	76.4628
2.924305	1474.11	1475.04	1104.31	1085.81	1114.61	1044.27	168.684	605.860	606.072	14.3600	75.2685	-253.11	-282.65	156.555	78.3849
2.940465	1474.11	1475.20	1104.46	1085.81	1114.61	1042.22	162.480	607.333	607.001	14.5706	75.3226	-255.20	-282.44	156.555	78.2502
2.956734	1474.11	1475.04	1104.93	1085.01	1114.41	1039.77	159.935	607.543	607.415	14.5706	75.0521	-257.68	-283.28	156.276	77.3400
2.972993	1474.11	1475.04	1104.93	1086.22	1114.41	1040.79	165.025	607.543	607.311	14.2547	75.0521	-258.80	-282.44	156.152	76.9353
2.989226	1474.11	1475.04	1104.93	1086.22	1114.41	1044.06	166.298	607.122	607.001	14.5706	74.8898	-258.86	-282.65	156.524	77.2389
3.005900	1474.11	1474.73	1104.46	1085.81	1114.82	1044.47	168.843	606.701	606.588	14.1495	74.8898	-258.34	-282.44	156.771	77.7448
3.022216	1473.65	1474.73	1104.46	1085.81	1114.41	1043.04	165.661	606.701	606.485	14.2547	75.2280	-257.55	-282.86	156.524	77.9805
3.038440	1474.11	1475.04	1104.31	1085.81	1114.41	1038.95	159.775	606.701	606.072	14.2547	75.0521	-258.80	-282.72	156.555	77.8458
3.055210	1474.11	1474.73	1104.31	1085.39	1114.41	1037.93	161.684	606.070	605.555	14.5706	74.8898	-262.03	-282.72	156.771	77.4413
3.071423	1474.11	1475.04	1104.15	1085.39	1114.41	1043.86	166.298	606.912	606.175	14.3600	74.7681	-263.03	-282.44	157.544	77.9805
3.087642	1474.11	1474.89	1104.31	1085.50	1114.41	1044.27	160.412	607.543	606.898	14.3600	74.7410	-261.97	-282.44	157.019	78.0440
3.113074	1473.50	1474.73	1104.46	1085.91	1114.41	1037.31	153.412	607.859	607.518	14.2547	74.6734	-259.39	-282.72	157.266	78.0143
3.129672	1474.11	1475.04	1104.93	1086.01	1114.41	1039.77	159.139	608.385	607.828	14.1495	74.6193	-257.81	-283.00	157.019	77.9805
3.146375	1474.11	1475.04	1105.24	1086.22	1114.41	1041.61	155.480	608.806	608.241	14.1495	74.7681	-256.70	-283.00	156.895	77.8795
3.162664	1474.11	1475.04	1105.08	1086.22	1114.41	1042.22	157.389	608.385	607.828	14.1495	74.6193	-255.72	-282.44	157.081	77.7109



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
3.178894	1474.11	1475.04	1105.24	1086.22	1114.41	1043.04	161.207	608.385
3.195195	1474.11	1475.04	1105.08	1086.22	1114.41	1043.86	161.684	607.859
3.211427	1474.11	1475.04	1105.08	1086.22	1114.41	1043.04	165.343	607.859
3.227653	1474.11	1475.04	1104.93	1086.22	1114.41	1043.04	161.048	607.122
3.244416	1474.11	1475.04	1104.93	1086.22	1113.79	1039.77	151.185	607.649
3.260647	1474.11	1475.20	1104.93	1086.01	1114.41	1038.95	148.481	607.754
3.276855	1474.11	1475.20	1104.93	1086.11	1114.41	1039.77	148.958	607.122
3.293164	1474.26	1475.20	1104.93	1086.01	1114.41	1040.59	152.140	607.754
3.317588	1474.11	1475.20	1104.46	1085.81	1114.41	1040.59	155.958	607.122
3.337431	1474.11	1475.20	1104.31	1085.81	1114.41	1043.86	168.684	607.122
3.354275	1474.26	1475.20	1104.31	1085.91	1114.41	1045.50	172.502	607.754
3.370498	1474.26	1475.20	1104.31	1085.91	1113.79	1043.04	168.843	607.543
3.387737	1474.11	1475.20	1104.46	1085.81	1114.41	1041.00	162.321	607.859
3.404001	1474.11	1475.04	1104.62	1085.50	1113.79	1040.59	159.139	607.122
3.420216	1474.11	1475.20	1104.46	1085.81	1114.41	1038.95	151.503	607.543
3.436907	1474.11	1475.20	1104.62	1085.50	1114.41	1037.93	151.503	608.175
3.453211	1474.11	1475.20	1104.93	1086.01	1114.41	1041.41	157.867	608.385
3.464428	1474.11	1475.20	1104.93	1086.11	1114.41	1043.04	157.230	607.754
3.481196	1474.11	1475.20	1104.93	1086.11	1114.41	1043.04	159.775	607.859
3.497410	1474.26	1475.35	1105.08	1086.22	1114.41	1040.79	158.026	608.385
3.521752	1474.26	1475.20	1104.93	1086.32	1114.41	1039.77	167.411	607.859
3.539050	1474.72	1475.20	1104.93	1086.32	1113.79	1041.41	169.320	607.859
3.555260	1474.26	1475.20	1105.08	1086.63	1114.41	1043.04	172.502	608.596
3.571932	1474.26	1475.20	1105.08	1086.32	1113.79	1042.22	169.320	607.859
3.588247	1474.26	1475.20	1104.93	1086.22	1113.79	1040.59	167.411	607.543
3.604465	1474.26	1475.20	1104.93	1086.22	1114.41	1043.04	170.116	608.069
3.621770	1474.11	1475.20	1104.93	1086.32	1114.41	1043.86	172.502	608.806
3.637981	1474.11	1475.20	1105.08	1086.42	1113.79	1044.06	171.388	608.385
3.654210	1474.11	1475.20	1105.08	1086.22	1114.41	1042.22	168.207	607.543
3.670984	1474.11	1475.20	1104.93	1086.01	1114.41	1039.77	165.661	606.701
3.687205	1474.11	1475.20	1104.46	1085.81	1113.79	1039.77	163.593	606.491
3.703893	1474.26	1475.20	1104.46	1085.50	1114.41	1037.93	155.958	605.860
3.727392	1474.41	1475.20	1104.46	1085.81	1114.41	1038.95	156.117	607.122
3.745417	1474.72	1475.98	1104.93	1086.22	1114.41	1040.59	154.208	608.385
3.762192	1474.72	1476.91	1105.08	1086.63	1113.79	1040.59	154.844	608.385
3.778401	1474.72	1475.51	1105.08	1086.63	1113.79	1041.41	160.730	608.385
3.794634	1474.26	1475.51	1105.55	1086.63	1112.97	1043.04	165.502	608.806
3.811393	1474.11	1475.20	1105.70	1087.04	1114.41	1044.06	164.866	608.385
3.827603	1474.26	1475.20	1105.70	1087.04	1114.41	1043.25	161.684	607.859
3.843841	1474.26	1475.20	1105.70	1087.04	1114.41	1037.52	155.321	607.859
3.860137	1474.11	1475.04	1106.17	1086.84	1113.58	1035.68	153.571	608.385
3.876350	1474.11	1475.04	1105.70	1087.04	1113.58	1039.97	161.048	607.543
3.893042	1474.11	1475.20	1105.55	1086.63	1113.58	1043.04	163.752	606.281
3.909341	1474.11	1475.20	1105.55	1086.32	1113.58	1043.04	166.139	607.333
3.932953	1474.41	1475.20	1105.70	1087.45	1113.58	1041.41	166.298	608.806
3.951386	1474.72	1475.67	1106.17	1087.45	1113.58	1042.22	168.684	608.806
3.967590	1474.72	1475.20	1106.17	1087.45	1113.58	1041.41	161.684	608.385
3.983816	1474.41	1475.20	1106.17	1087.04	1113.58	1041.41	165.502	608.490
4.000109	1474.26	1475.20	1103.22	1087.45	1113.58	1042.22	170.593	607.859

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103 CALIBRATION PERFORMED 09-02-78 02:01:46 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFV-2	PFVD	PFJ	PGH20T	PH20-J	PH20-OUT	PC-1	PC-2	POJI	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161
	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
4.016335	1474.26	1475.20	1106.17	1087.04	1113.58	1040.79	165.025	607.543	606.588	14.1495	72.0714	-275.40	-283.21
4.033017	1474.11	1475.20	1105.55	1086.73	1113.58	1040.79	168.047	607.122	606.588	14.1495	72.0714	-275.95	-283.35
4.050306	1474.11	1475.20	1105.55	1086.63	1113.58	1041.41	163.752	606.701	606.175	14.1495	72.0171	-276.49	-283.42
4.066535	1474.11	1475.20	1105.55	1086.63	1113.58	1042.22	164.866	607.543	607.001	14.3600	72.0171	-276.91	-283.57
4.082829	1474.11	1475.20	1105.55	1087.04	1113.58	1040.59	157.867	608.911	608.551	14.2547	71.4196	-276.49	-282.44
4.099054	1474.11	1475.20	1106.17	1087.45	1113.79	1037.93	153.571	609.227	608.551	14.3600	71.9085	-275.40	-283.35
4.115287	1474.11	1475.20	1106.17	1087.45	1113.58	1036.50	150.072	608.385	608.138	14.2547	71.8541	-274.87	-283.57
4.139810	1474.11	1475.20	1106.17	1087.04	1113.17	1043.04	161.048	607.859	607.415	14.2547	71.6912	-275.88	-283.42
4.157461	1474.26	1475.51	1106.17	1087.14	1113.58	1046.31	165.661	607.859	607.415	14.2547	71.6369	-275.95	-283.50
4.174128	1474.41	1475.20	1106.17	1087.04	1113.58	1043.04	158.503	607.859	607.311	14.2547	71.6369	-275.88	-283.42
4.190362	1474.26	1475.20	1106.17	1087.04	1113.58	1036.50	152.140	608.385	607.725	14.1495	71.6369	-275.20	-283.35
4.206576	1474.11	1475.20	1105.55	1087.04	1113.58	1037.72	161.207	607.754	606.898	14.3600	71.6369	-273.79	-283.57
4.223347	1474.11	1475.20	1105.70	1087.04	1113.58	1043.86	164.071	607.543	606.898	14.4653	71.5147	-273.19	-283.35
4.239568	1474.26	1475.20	1105.86	1087.04	1113.58	1043.86	156.753	607.859	607.311	14.2547	71.5283	-272.04	-283.57
4.255793	1474.11	1475.20	1105.70	1087.14	1113.17	1039.77	161.048	607.964	607.415	14.1495	71.6369	-270.50	-283.42
4.272083	1474.11	1475.20	1106.17	1087.04	1112.97	1040.59	168.047	607.754	607.311	14.1495	71.4196	-270.23	-283.50
4.288316	1474.11	1475.20	1106.17	1087.04	1113.58	1045.50	174.570	607.859	607.311	14.1495	71.3653	-269.63	-283.57
4.305995	1474.11	1474.11	1106.17	1087.04	1113.58	1044.47	173.774	608.175	607.725	14.1495	71.1479	-271.03	-283.42
4.322292	1474.11	1475.04	1105.70	1087.14	1112.97	1038.95	161.525	608.385	607.725	14.1495	71.0527	-272.71	-283.71
4.345886	1474.11	1475.04	1106.17	1087.04	1112.97	1033.43	149.594	608.385	607.828	14.1495	70.9983	-274.81	-283.57
4.364027	1474.11	1475.04	1106.17	1087.04	1113.58	1038.13	146.413	607.754	607.415	14.2547	71.0391	-275.88	-283.78
4.380067	1474.26	1475.20	1106.17	1087.14	1112.97	1043.04	154.685	608.806	608.138	14.1495	71.0391	-276.49	-283.57
4.396773	1474.11	1475.20	1106.17	1087.25	1113.58	1043.86	159.775	607.859	607.518	14.1495	71.0391	-276.91	-283.57
4.413065	1474.11	1475.20	1106.17	1087.04	1113.17	1040.59	155.480	608.596	608.138	14.1495	70.9304	-276.77	-283.50
4.429289	1474.11	1475.20	1106.17	1087.45	1112.97	1037.31	153.730	608.806	608.241	14.1495	70.8217	-275.13	-283.35
4.445999	1474.11	1475.20	1106.17	1087.45	1112.76	1037.31	155.958	607.859	607.725	14.1495	70.8489	-272.71	-283.71
4.459292	1474.11	1475.20	1106.32	1087.45	1112.97	1043.04	161.684	608.385	608.138	14.1495	70.8217	-271.64	-283.42
4.475519	1474.11	1475.04	1106.32	1087.45	1112.97	1046.52	168.684	608.385	608.138	14.1495	70.8353	-271.64	-283.42
4.491816	1474.11	1475.20	1106.17	1087.45	1112.97	1045.50	170.275	607.859	607.518	14.1495	70.8217	-272.18	-282.72
4.508037	1474.11	1475.20	1106.17	1087.04	1112.97	1043.04	169.320	607.859	607.518	14.1495	70.7673	-273.52	-281.74
4.525257	1473.50	1474.73	1106.17	1087.04	1112.97	1040.59	167.570	607.649	607.001	14.1495	70.6042	-274.60	-284.99
4.549775	1472.88	1473.80	1105.70	1086.63	1112.97	1037.31	156.276	607.754	607.415	14.1495	70.4138	-273.93	-284.49
4.567357	1474.11	1475.20	1106.17	1086.63	1112.97	1035.60	150.367	608.806	608.241	14.1495	70.3865	-272.90	-283.78
4.584017	1474.72	1475.98	1106.32	1087.04	1113.58	1037.72	150.867	609.437	608.758	14.1495	70.3322	-273.25	-283.57
4.600319	1474.87	1476.60	1106.79	1087.45	1112.97	1040.59	154.685	608.490	607.931	14.1495	70.6042	-274.00	-283.57
4.614543	1475.33	1476.60	1106.79	1087.45	1112.76	1041.00	152.776	607.859	607.415	14.1495	70.6586	-273.25	-283.57
4.632038	1475.33	1476.29	1106.95	1087.76	1112.97	1041.00	155.480	608.385	607.828	14.1495	70.5497	-271.64	-283.50
4.649069	1474.87	1475.98	1106.95	1087.97	1112.97	1043.25	164.866	608.385	607.931	14.1495	70.3322	-269.76	-283.42
4.665257	1474.72	1475.98	1106.79	1087.76	1112.97	1043.04	173.933	607.859	607.415	14.1495	70.3865	-268.96	-283.42
4.682027	1474.26	1475.98	1106.32	1087.56	1113.17	1043.04	173.933	607.333	606.588	14.1495	69.9920	-267.35	-283.35
4.698242	1474.72	1475.98	1106.17	1087.45	1112.97	1042.22	171.229	607.543	606.898	14.1495	70.1688	-267.89	-283.35
4.7114943	1474.72	1475.98	1106.17	1087.45	1112.97	1038.95	154.208	607.228	607.001	14.1495	70.1144	-269.49	-283.35
4.732229	1474.72	1476.13	1106.32	1087.45	1112.97	1035.68	149.754	607.017	606.485	14.1495	70.1144	-271.91	-283.50
4.755739	1475.33	1476.29	1106.79	1087.56	1112.97	1043.04	161.684	607.122	606.588	14.1495	70.0600	-272.18	-283.85
4.775669	1475.33	1476.60	1106.79	1087.56	1112.97	1042.22	153.412	607.649	607.001	14.1495	70.1144	-270.56	-283.57
4.791971	1475.33	1476.60	1107.41	1087.87	1112.97	1038.95	152.140	608.385	607.725	14.1495	69.5565	-269.69	-283.35
4.809175	1475.33	1476.60	1107.41	1088.28	1112.97	1041.61	161.684	609.227	608.551	14.1495	69.5565	-269.29	-283.50
4.825946	1474.87	1476.60	1107.41	1088.69	1113.17	1046.31	163.593	609.227	608.551	14.1495	69.7335	-270.56	-283.35
4.842157	1474.87	1476.60	1107.41	1088.28	1112.97	1043.04	158.503	607.859	607.518	14.1495	69.9512	-270.56	-283.14



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFVD		PGH20T		PH20-OUT		PC-2		TFJ		TOJ		TIN	
PARAMETER	PFV-2	PFJ		PH20-J		PC-1		POJI		TBL		TAO			
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169
4.858348	1475.33	1476.60	1107.41	1088.28	1112.97	1035.68	152.140	607.543	606.898	14.1495	69.8967	-270.30	-283.00	157.266	79.0583
4.875156	1475.94	1477.22	1107.41	1088.28	1112.76	1034.25	150.867	608.385	607.828	14.1495	69.7335	-272.11	-283.50	157.513	79.6638
4.891383	1476.09	1477.38	1107.72	1088.69	1113.17	1040.59	159.775	608.911	608.551	14.2547	69.6790	-272.18	-283.50	157.822	80.8065
4.907731	1475.94	1477.22	1107.57	1089.10	1112.97	1044.47	158.503	608.385	607.828	14.1495	69.6246	-271.64	-283.42	157.359	80.2017
4.924898	1475.48	1476.60	1107.57	1088.69	1112.97	1042.22	157.389	607.754	607.415	14.1495	69.6790	-271.91	-283.42	157.142	80.1682
4.941113	1475.33	1476.75	1107.41	1088.69	1112.76	1037.93	153.412	607.859	607.415	14.1495	69.5428	-273.73	-283.57	157.142	80.2017
4.964158	1475.48	1477.22	1107.57	1088.69	1112.97	1038.95	154.685	608.701	608.241	13.8336	69.3250	-276.02	-283.57	157.792	80.2017
4.982658	1476.09	1477.22	1108.03	1089.10	1112.76	1040.59	156.594	608.806	608.241	13.9389	69.0252	-277.25	-283.57	158.008	80.2017
4.998888	1476.55	1477.53	1108.03	1089.10	1112.76	1041.00	155.480	608.806	608.551	14.1495	69.0797	-277.52	-283.50	157.297	79.5966
5.015172	1476.55	1477.38	1108.03	1089.10	1112.76	1039.97	157.230	607.859	607.828	14.1495	69.0797	-277.04	-283.57	156.524	79.0583
5.031388	1476.09	1477.22	1108.03	1089.10	1112.97	1040.59	162.957	608.175	607.828	14.1495	69.1206	-276.36	-283.57	156.152	79.1256
5.048084	1476.55	1477.53	1108.03	1089.21	1112.97	1042.22	168.684	607.964	607.931	14.1495	69.1070	-275.27	-283.42	156.029	79.0583
5.064372	1476.55	1477.69	1108.03	1089.31	1112.76	1042.22	166.139	607.859	607.725	13.9389	69.1206	-275.88	-283.57	156.307	79.3948
5.080600	1476.55	1477.69	1108.03	1089.10	1112.76	1042.22	168.684	607.543	607.001	14.1495	69.0797	-276.77	-283.85	156.060	79.8656
5.096908	1476.55	1477.53	1108.03	1088.79	1112.76	1042.22	171.865	607.543	606.898	14.1495	69.0797	-278.14	-283.85	156.276	79.6974
5.113119	1476.55	1477.69	1107.57	1088.69	1112.76	1043.86	173.138	607.754	607.311	14.1495	68.9707	-278.35	-282.72	155.874	78.7890
5.129349	1476.09	1477.22	1107.41	1088.69	1112.76	1042.22	164.866	607.754	607.415	14.1495	68.8890	-278.07	-283.85	155.688	78.7890
5.146104	1476.09	1477.22	1107.57	1088.79	1112.76	1035.68	150.867	608.385	608.138	13.9389	68.8618	-277.45	-283.57	156.524	78.5870
5.171566	1476.55	1477.69	1108.03	1089.10	1112.76	1035.68	155.958	607.859	607.725	13.9389	68.8073	-276.84	-283.85	157.019	79.3948
5.190846	1477.16	1478.47	1108.34	1089.10	1112.76	1043.86	165.661	607.859	607.415	14.1495	68.7527	-274.27	-283.14	156.895	79.3274
5.206885	1477.16	1478.47	1108.65	1089.51	1112.76	1044.47	165.661	607.859	607.518	13.9389	68.6846	-272.71	-283.71	157.019	79.5966
5.223108	1476.86	1477.84	1108.65	1089.41	1112.76	1041.00	157.389	607.754	607.311	14.1495	68.6846	-272.71	-283.00	157.050	79.5966
5.239796	1476.55	1477.69	1108.65	1089.41	1112.76	1037.31	155.958	607.543	607.311	14.1495	68.4802	-273.05	-283.57	157.792	81.0751
5.257089	1476.55	1478.15	1108.19	1089.21	1112.97	1036.50	150.867	608.069	607.828	13.8336	68.4529	-274.06	-283.57	158.286	81.3437
5.274307	1476.70	1478.47	1108.19	1089.31	1112.76	1037.52	149.754	608.385	608.241	13.8336	68.3711	-273.25	-283.57	158.070	81.2766
5.292100	1477.16	1478.47	1108.65	1089.51	1112.76	1043.04	161.048	608.806	608.551	13.9389	68.4256	-271.64	-283.50	157.915	81.7464
5.308307	1477.16	1478.47	1109.27	1089.93	1112.76	1046.31	165.661	609.648	609.068	14.1495	68.4256	-270.03	-283.35	157.142	80.4034
5.324557	1476.55	1478.15	1109.27	1090.34	1112.76	1043.04	157.230	609.648	609.378	13.7283	68.3165	-270.03	-283.35	156.771	80.1345
5.341287	1476.55	1477.69	1109.27	1090.03	1112.76	1035.68	152.140	609.437	608.965	14.1495	68.3165	-272.38	-283.85	156.864	79.5966
5.357521	1476.70	1478.00	1108.81	1089.51	1112.76	1035.68	155.958	608.596	608.241	14.1495	68.2074	-274.06	-283.57	157.328	79.4620
5.382492	1476.70	1478.47	1108.65	1089.21	1112.76	1043.04	157.230	608.175	607.828	13.8336	67.9346	-272.38	-283.85	157.112	79.8656
5.401195	1477.16	1478.62	1108.81	1089.51	1112.76	1043.86	160.412	608.806	608.551	13.6230	67.8800	-271.10	-283.50	157.761	81.2429
5.418211	1477.77	1478.47	1108.81	1089.62	1112.76	1040.79	161.048	608.385	607.828	13.8336	67.9346	-270.56	-283.71	157.668	79.6638
5.434911	1477.77	1478.62	1108.81	1089.62	1112.76	1037.93	155.321	608.385	607.828	14.1495	67.9346	-271.10	-283.42	157.050	80.5714
5.451209	1477.77	1478.78	1108.65	1089.51	1112.76	1037.52	157.867	607.754	607.415	14.1495	67.7709	-272.45	-283.85	157.761	80.5714
5.455446	1477.77	1478.78	1108.81	1089.62	1112.76	1039.77	157.230	607.859	607.725	13.5177	67.7709	-272.45	-283.85	158.008	80.7729
5.472218	1477.16	1478.62	1109.27	1089.62	1112.76	1040.59	156.753	608.385	607.828	13.8336	67.9346	-272.18	-283.57	157.359	80.2017
5.488442	1477.16	1478.47	1108.96	1089.51	1112.76	1038.95	154.685	608.069	607.725	13.6230	67.9346	-272.65	-283.57	157.266	80.2017
5.504645	1477.16	1478.47	1108.96	1089.93	1112.76	1036.50	151.026	608.490	608.138	13.6230	67.8118	-271.10	-283.35	156.771	79.5966
5.521418	1477.16	1478.47	1109.43	1090.34	1112.76	1040.59	154.844	609.227	608.551	13.8336	67.7162	-269.42	-283.00	156.555	79.6638
5.537638	1477.77	1478.47	1109.90	1090.75	1112.76	1043.04	161.048	609.227	608.655	13.8336	67.6617	-267.89	-283.00	157.266	80.0001
5.553854	1477.16	1478.62	1109.90	1090.75	1112.76	1043.04	163.593	609.227	608.551	13.6230	67.3302	-266.75	-283.00	157.019	79.6302
5.577378	1477.16	1478.47	1109.90	1090.85	1112.76	1038.95	166.775	608.385	608.241	13.6230	67.4434	-265.75	-283.57	156.276	79.0583
5.596057	1477.77	1478.47	1109.90	1090.75	1112.76	1040.59	169.956	607.859	607.415	14.1495	67.3342	-264.95	-283.57	155.936	78.6206
5.612190	1477.77	1478.47	1109.59	1090.34	1112.76	1041.41	170.116	607.543	607.208	14.1495	67.3342	-265.22	-283.42	156.029	78.5870
5.628393	1476.70	1478.47	1109.27	1090.03	1112.76	1039.97	168.684	607.122	606.898	14.1495	67.4979	-265.75	-283.35	157.019	79.8656
5.644621	1476.55	1477.69	1108.96	1089.93	1112.76	1038.95	165.343	607.122	606.898	14.1495	67.4434	-266.28	-283.57	156.926	80.3025
5.661392	1476.55	1477.69	1108.81	1090.03	1112.76	1038.95	161.048	607.543	607.105	14.1495	67.1156	-266.82	-283.42	157.421	80.9408
5.678612	1476.55	1477.84	1108.81	1089.93	1112.76	1038.13	156.594	607.754	607.415	13.7283	67.1156	-268.42	-283.57	157.142	78.8563

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFVD	PGH2OT	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
5.694849	1477.16	1478.15	1109.27	1089.93	1112.76	1037.31	152.776	607.543
5.711074	1477.16	1478.47	1109.27	1089.93	1112.76	1038.54	150.867	607.859
5.727292	1477.16	1478.62	1109.27	1090.03	1112.76	1038.95	148.958	607.859
5.743994	1477.77	1478.47	1109.27	1090.34	1112.76	1038.95	149.754	608.175
5.761282	1477.77	1478.62	1109.90	1090.75	1112.76	1040.59	154.844	607.859
5.787296	1477.77	1478.47	1111.14	1090.54	1112.76	1043.86	165.025	609.543
5.804641	1477.77	1478.78	1121.85	1087.04	1112.76	1041.41	161.684	597.441
5.820956	1490.00	1490.29	1242.99	998.454	1112.76	1037.31	156.276	434.961
5.837165	1534.00	1532.28	1450.93	678.095	1112.76	1037.31	155.480	242.385
5.853934	1565.79	1563.08	1568.33	343.521	1112.76	1042.22	163.116	149.885
5.870153	1574.96	1573.65	1596.44	169.435	1112.76	1045.50	162.480	126.313
5.886383	1573.73	1573.65	1590.70	112.986	1112.76	1043.86	158.662	115.053
5.903139	1571.29	1571.79	1580.76	97.8435	1112.76	1041.41	161.684	86.8504
5.919349	1569.76	1570.54	1576.10	85.1734	1112.76	1043.04	162.957	55.2805
5.936733	1569.45	1569.76	1575.17	70.1340	1112.76	1043.86	161.048	35.0757
5.952880	1569.45	1569.76	1574.86	56.5368	1112.76	1043.86	161.684	25.6048
5.969095	1569.00	1569.61	1575.17	47.0599	1112.76	1043.86	162.321	20.7641
5.993067	1568.39	1569.30	1575.01	38.4072	1112.76	1043.04	154.685	16.6600
6.010732	1568.39	1569.30	1574.86	34.2868	1112.76	1038.13	144.663	15.7129
6.026943	1568.39	1569.30	1574.70	31.8146	1112.76	1036.50	142.754	14.8710
6.043240	1568.23	1568.83	1574.70	29.6514	1112.76	1040.59	150.867	14.3448
6.059461	1568.23	1568.67	1574.55	28.2092	1112.76	1043.04	151.503	13.8187
6.076156	1567.77	1568.67	1574.55	27.0761	1112.76	1042.22	147.845	13.5030
6.092462	1567.77	1568.05	1574.55	26.3551	1112.76	1041.41	149.754	13.5030
6.109684	1567.77	1568.05	1574.08	26.0460	1112.76	1040.79	148.799	13.5030
6.126990	1567.62	1568.05	1573.92	25.6340	1112.76	1041.41	152.935	14.0291
6.143199	1567.62	1568.36	1573.92	25.4280	1112.76	1043.04	155.321	13.8187
6.159425	1567.16	1567.59	1573.46	25.2220	1112.76	1042.22	155.480	14.0291
6.176193	1567.01	1567.27	1573.30	25.2220	1112.76	1039.77	154.685	13.8187
6.199626	1567.01	1567.27	1573.30	25.2220	1112.76	1043.25	157.230	13.8187
6.218741	1567.01	1567.27	1573.30	25.3250	1112.76	1043.04	150.867	13.8187
6.234885	1567.16	1567.27	1573.30	25.4280	1112.76	1040.59	151.026	14.0291
6.251105	1567.01	1567.12	1573.30	25.4280	1112.76	1040.79	150.072	14.0291
6.267799	1567.01	1567.12	1572.68	25.6340	1112.76	1042.22	155.958	14.0291
6.284096	1566.55	1566.81	1572.84	25.6340	1112.76	1041.20	155.321	14.0291
6.300309	1566.55	1566.81	1572.84	25.7370	1112.76	1043.04	158.662	13.8187
6.317082	1567.01	1566.81	1572.68	26.0460	1112.76	1043.86	159.139	13.8187
6.334298	1566.40	1566.34	1572.68	25.8400	1112.76	1043.04	155.321	14.0291
6.350523	1566.40	1566.81	1572.68	25.7370	1112.76	1040.59	151.663	14.0291
6.368284	1566.40	1566.34	1572.68	25.8400	1112.76	1040.59	154.685	14.0291
6.384498	1566.40	1566.19	1572.22	26.0460	1112.76	1040.59	152.140	14.0291
6.409724	1566.40	1566.19	1572.06	26.0460	1112.76	1039.77	152.776	14.0291
6.428078	1566.40	1566.19	1572.06	26.0460	1112.76	1042.22	156.594	13.8187
6.444304	1565.94	1566.19	1572.06	26.0460	1112.76	1043.04	159.139	13.8187
6.461082	1565.94	1566.19	1572.06	26.0460	1112.76	1043.04	157.230	14.0291
6.468297	1565.79	1565.87	1572.06	26.0460	1112.76	1042.22	154.049	13.8187
6.485528	1565.79	1565.87	1571.59	26.0460	1112.76	1042.22	155.162	14.0291
6.502295	1565.79	1565.72	1571.59	26.0460	1112.76	1039.77	148.322	13.8187
6.518502	1565.79	1565.56	1571.44	26.0460	1112.76	1039.77	147.049	14.0291

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFV-2	PFVD	PFJ	PGH2OT	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93
	59/157	60/160	61/161	62/168	63/169					
6.535746	1565.79	1565.56	1571.28	26.0460	1112.76	1043.25	152.776	13.5030	13.9208	13.6230
6.552017	1564.87	1565.56	1571.13	26.0460	1112.76	1043.86	147.526	14.0291	13.9208	13.5177
6.568238	1564.57	1564.79	1570.82	26.0460	1112.76	1039.77	143.231	14.0291	14.0241	13.6230
6.584923	1564.11	1564.32	1570.20	26.0460	1112.76	1039.77	151.663	14.0291	13.9208	13.6230
6.608440	1563.34	1563.70	1569.58	25.2220	1112.76	1045.50	161.684	14.0291	13.9208	13.6230
6.627255	1562.73	1563.08	1568.33	26.0460	1112.76	1043.86	154.685	14.0291	13.9208	13.6230
6.643740	1562.12	1562.30	1567.87	26.2521	1112.76	1038.95	147.367	14.0291	14.1274	13.6230
6.659971	1561.51	1561.83	1567.25	26.2521	1112.76	1037.52	145.936	14.0291	14.1274	13.6230
6.676184	1560.29	1561.21	1566.47	26.0460	1112.76	1042.22	154.844	14.2396	13.9208	13.5177
6.692962	1559.68	1560.59	1565.85	26.0460	1112.76	1047.54	159.298	14.0291	14.2307	13.4125
6.709173	1559.06	1559.65	1565.23	26.0460	1112.76	1045.50	150.867	14.0291	13.9208	13.6230
6.725873	1558.45	1559.03	1564.61	26.1491	1112.76	1038.95	145.777	14.0291	14.0241	13.5177
6.743165	1557.84	1558.41	1563.99	26.1491	1112.76	1037.93	147.686	14.0291	14.1274	13.6230
6.759392	1557.23	1558.10	1563.52	26.0460	1112.76	1042.22	148.958	14.0291	13.9208	13.6230
6.776088	1556.62	1557.01	1562.74	26.2521	1112.76	1044.47	157.389	14.0291	14.2307	13.5177
6.792395	1556.01	1556.54	1562.12	26.2521	1112.76	1043.04	150.867	14.0291	14.1274	13.5177
6.816306	1554.94	1555.92	1561.35	26.2521	1112.76	1038.95	149.594	14.0291	14.1274	13.6230
6.834177	1554.79	1555.30	1560.88	26.2521	1112.76	1042.22	153.571	14.0291	13.9208	13.5177
6.850145	1554.17	1554.68	1559.95	26.1491	1112.76	1043.86	155.321	14.0291	13.9208	13.5177
6.866844	1553.56	1554.37	1559.64	26.1491	1112.76	1041.41	150.867	14.0291	14.2307	13.4125
6.883137	1552.95	1553.74	1559.02	26.2521	1112.76	1038.95	149.754	14.0291	14.2307	13.5177
6.899350	1552.49	1553.12	1558.55	26.2521	1112.97	1043.86	156.117	14.0291	14.2307	13.6230
6.916046	1552.34	1552.34	1557.93	26.5611	1112.76	1047.13	158.503	14.0291	14.2307	13.6230
6.932338	1551.27	1551.88	1557.62	26.3551	1112.76	1042.22	148.322	14.0291	14.2307	13.6230
6.948565	1551.12	1551.25	1557.15	26.5611	1112.76	1036.50	140.686	14.0291	14.2307	13.5177
6.964864	1550.51	1551.25	1556.53	26.3551	1112.97	1038.95	141.959	14.1344	14.2307	13.6230
6.982072	1549.90	1550.63	1555.91	26.6641	1112.97	1042.22	147.049	14.1344	14.2307	13.5177
6.998277	1549.28	1549.85	1555.60	26.2521	1112.97	1041.41	141.959	14.1344	14.2307	13.5177
7.023712	1548.67	1549.54	1554.82	26.3551	1112.76	1042.22	147.686	14.0291	14.1274	13.5177
7.040283	1548.67	1549.54	1554.67	26.3551	1112.76	1043.04	152.299	14.2396	14.1274	13.5177
7.057971	1548.37	1548.77	1554.67	26.3551	1112.97	1043.25	156.753	14.0291	14.2307	13.5177
7.074273	1548.22	1548.77	1554.20	26.5611	1112.97	1043.86	154.208	14.0291	14.2307	13.5177
7.090503	1548.06	1548.77	1554.05	26.4581	1112.76	1043.04	152.140	14.2396	14.2307	13.5177
7.107796	1547.76	1548.30	1553.74	26.4581	1112.76	1037.93	147.049	14.0291	14.2307	13.5177
7.124024	1547.60	1548.14	1553.58	26.4581	1112.76	1038.95	152.458	14.2396	14.2307	13.5177
7.140260	1547.45	1548.14	1553.58	26.4581	1112.76	1043.04	154.844	14.4501	14.2307	13.5177
7.157030	1547.45	1548.14	1553.43	26.4581	1112.97	1045.50	157.230	14.1344	14.2307	13.5177
7.173255	1547.45	1548.14	1553.43	26.3551	1112.76	1042.22	151.026	14.2396	14.2307	13.4125
7.189949	1547.45	1548.14	1553.43	26.6641	1112.97	1037.72	147.208	14.1344	14.2307	13.4125
7.206246	1547.45	1547.68	1553.43	26.5611	1112.97	1040.59	145.777	14.0291	14.2307	13.4125
7.230369	1547.45	1547.83	1553.43	26.5611	1112.97	1043.04	143.231	14.1344	14.2307	13.4125
7.248786	1547.45	1548.14	1553.43	26.3551	1112.97	1039.77	139.573	14.2396	14.2307	13.3072
7.264995	1547.45	1548.14	1553.43	26.3551	1112.97	1038.13	147.686	14.0291	14.2307	13.4125
7.281225	1546.99	1547.52	1553.43	26.3551	1112.76	1042.22	150.390	14.0291	14.2307	13.4125
7.298000	1546.99	1547.37	1553.43	26.3551	1112.76	1044.27	155.321	14.1344	14.2307	13.4125
7.314204	1546.99	1547.52	1553.43	26.3551	1112.97	1043.86	150.867	14.1344	14.2307	13.4125
7.330416	1547.45	1547.68	1552.96	26.5611	1112.97	1042.22	144.663	14.1344	14.2307	13.5177
7.347187	1547.45	1547.68	1552.96	26.4581	1112.76	1040.59	138.300	14.2396	14.2307	13.4125
7.363414	1547.45	1547.68	1552.96	26.3551	1112.97	1039.77	137.664	14.2396	14.2307	13.5177

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFVD	PGH2OT	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PFV-1	PFV-2	PFJ	PH20-J	PC-1	POJI	TAO	TIN
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
7.379744	1547.45	1547.68	1553.11	26.3551	1112.76	1043.04	147.845	14.0291
7.395945	1546.99	1547.68	1552.96	26.3551	1112.76	1045.50	153.571	14.2396
7.412216	1546.84	1547.37	1552.96	26.3551	1112.97	1044.27	154.685	14.2396
7.435035	1546.84	1547.21	1552.96	26.2521	1112.97	1043.25	154.208	14.2396
7.451013	1547.45	1547.52	1552.96	26.3551	1112.76	1042.22	152.299	14.2396
-35992.535	1547.45	1547.52	1552.96	26.3551	1112.97	1038.95	151.026	14.2396
-35992.519	1547.45	1547.52	1552.96	26.3551	1112.76	1041.00	152.776	14.0291
-35992.503	1547.45	1547.52	1552.96	26.2521	1112.97	1043.86	154.208	14.2396
-35992.486	1546.84	1547.21	1552.96	26.2521	1112.97	1042.22	149.594	14.0291
-35992.470	1546.84	1547.21	1552.80	26.1491	1113.17	1038.95	149.117	14.0291
-35992.453	1546.84	1547.37	1552.96	26.2521	1113.17	1040.79	151.503	14.0291
-35992.437	1546.84	1547.21	1552.80	26.0460	1112.76	1043.04	150.867	14.1344
-35992.421	1546.38	1547.21	1552.96	26.2521	1112.97	1042.22	141.959	14.2396
-35992.405	1546.84	1547.21	1552.80	26.1491	1112.97	1040.79	143.390	14.2396
-35992.387	1546.84	1547.21	1552.80	26.3551	1112.97	1043.86	149.594	14.1344
-35992.363	1546.84	1547.06	1552.80	26.3551	1112.97	1043.86	156.594	14.0291
-35992.344	1546.84	1547.21	1552.49	26.2521	1112.97	1043.86	162.957	14.2396
-35992.328	1546.53	1547.21	1552.65	26.2521	1112.97	1043.86	161.525	14.2396
-35992.312	1546.38	1547.21	1552.80	26.2521	1112.76	1039.77	148.958	14.0291
-35992.295	1546.38	1547.21	1552.80	26.3551	1112.76	1037.31	144.663	14.2396
-35992.278	1546.84	1547.06	1552.80	26.3551	1112.97	1038.95	147.208	14.0291
-35992.262	1546.38	1547.21	1552.80	26.2521	1112.97	1042.22	147.526	14.2396
-35992.245	1546.84	1547.21	1552.80	26.3551	1112.76	1043.04	153.412	14.2396
-35992.229	1546.84	1547.21	1552.34	26.4581	1112.76	1043.25	160.412	14.0291
-35992.212	1546.84	1547.06	1552.34	26.8701	1112.76	1045.50	160.412	14.0291
-35992.196	1546.84	1546.90	1552.80	26.3551	1112.97	1045.50	158.503	14.0291
-35992.179	1546.23	1547.21	1552.34	26.4581	1112.76	1042.22	149.754	14.2396
-35992.155	1546.53	1547.06	1552.80	26.4581	1112.97	1040.59	149.117	14.0291
-35992.137	1546.84	1546.90	1552.80	26.6641	1112.97	1040.59	142.277	14.2396
-35992.118	1546.84	1546.90	1552.80	26.3551	1112.97	1039.77	144.504	14.2396
-35992.102	1546.84	1546.90	1552.49	26.5611	1112.97	1043.04	157.230	14.2396
-35992.086	1546.38	1547.06	1552.49	26.3551	1112.97	1044.06	161.843	14.1344
-35992.069	1546.23	1547.06	1552.49	26.4581	1112.97	1044.06	162.321	14.2396
-35992.052	1546.23	1546.90	1552.49	26.5611	1112.97	1043.04	158.662	14.2396
-35992.036	1546.53	1546.90	1552.65	26.8701	1113.38	1040.59	152.776	14.2396
-35992.019	1546.38	1546.90	1552.65	26.8701	1112.97	1039.77	145.936	14.2396
-35992.003	1546.53	1546.90	1552.65	26.8701	1112.97	1041.00	144.504	14.2396
-35991.987	1546.38	1547.06	1552.80	27.0761	1112.97	1041.00	143.868	14.6605
-35991.970	1546.38	1546.90	1552.34	27.2822	1112.97	1043.04	150.867	14.2396
-35991.946	1546.38	1546.90	1552.65	27.0761	1113.17	1044.47	153.412	14.2396
-35991.926	1546.38	1546.90	1552.34	26.8701	1112.97	1043.04	156.594	14.0291
-35991.910	1546.38	1546.90	1552.65	26.8701	1112.97	1043.04	159.775	14.2396
-35991.893	1546.84	1546.90	1552.49	26.8701	1112.97	1042.22	161.048	14.2396
-35991.876	1546.38	1546.90	1552.34	26.9731	1112.97	1042.22	153.412	14.2396
-35991.859	1546.23	1547.06	1552.34	26.8701	1112.97	1039.77	147.049	14.2396
-35991.843	1546.23	1546.90	1552.34	26.8701	1113.17	1039.77	146.254	14.0291
-35991.826	1546.23	1546.90	1552.34	26.8701	1113.58	1041.00	148.481	14.1344
-35991.810	1546.38	1546.90	1552.34	26.8701	1113.58	1044.27	152.776	14.2396
-35991.793	1546.23	1546.90	1552.34	27.0761	1112.97	1046.31	156.117	14.2396

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFV-2	PFVD	PFJ	PGH2OT	PH20-OUT	PC-2	PC-1	PC-2	PC-1	PC-2	TFJ	TBL	TOJ	TAO	TIN
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169	
-35991.777	1546.23	1546.90	1552.34	27.2822	1113.17	1043.86	147.526	14.2396	14.3341	13.3072	60.7544	-240.13	26.4696	82.1533	79.6974	
-35991.761	1546.23	1546.90	1552.18	26.8701	1112.97	1037.31	140.686	14.0291	14.3341	13.3072	60.8644	-239.82	26.8326	83.5275	81.6122	
-35991.735	1546.23	1546.59	1552.34	26.9731	1112.76	1039.77	144.663	14.2396	14.2307	13.3072	60.7819	-240.81	26.9052	82.4216	80.4034	
-35991.719	1546.38	1546.90	1552.34	27.2822	1113.17	1043.25	150.867	14.1344	14.2307	13.3072	60.9196	-241.38	27.1231	81.8849	79.3948	
-35991.703	1546.23	1546.90	1552.34	27.2822	1113.17	1043.86	151.344	14.2396	14.2307	13.3072	61.0847	-240.88	27.4137	82.5557	79.4620	
-35991.686	1546.23	1546.90	1552.18	27.0761	1113.17	1043.86	151.663	14.2396	14.2307	13.3072	61.2085	-239.88	27.4137	83.0585	80.2690	
-35991.670	1546.23	1546.90	1552.18	27.2822	1112.97	1042.22	148.958	14.0291	14.2307	13.3072	61.1948	-239.82	27.5226	82.4551	80.1345	
-35991.652	1546.23	1546.90	1552.18	27.2822	1112.97	1043.04	155.162	14.0291	14.3341	13.3072	61.1948	-239.38	27.6317	82.0191	80.7058	
-35991.636	1546.23	1546.90	1552.18	27.2822	1112.97	1043.04	155.321	14.2396	14.2307	13.3072	61.0847	-239.63	27.8497	82.1533	80.2690	
-35991.620	1546.23	1546.90	1552.18	27.2822	1112.97	1042.22	149.913	14.1344	14.2307	13.3072	61.3735	-239.38	27.9951	82.1868	80.6721	
-35991.603	1546.23	1546.90	1552.18	27.2822	1112.76	1039.77	143.231	14.1344	14.2307	13.3072	61.4423	-239.25	27.9951	81.9855	80.1345	
-35991.586	1546.23	1546.59	1552.18	27.2822	1112.97	1038.95	140.686	14.2396	14.2307	13.3072	61.4423	-239.38	28.1405	81.6500	79.6638	
-35991.569	1546.23	1546.90	1552.18	27.2822	1112.97	1039.77	139.414	14.2396	14.2307	13.3072	61.5248	-240.13	28.2859	82.5557	80.6721	
-35991.552	1546.23	1546.90	1552.18	27.0761	1112.97	1042.22	148.958	14.0291	14.2307	13.3072	61.1948	-240.63	28.4314	82.9579	80.6721	
8.458779	1545.62	1546.90	1552.18	26.8701	1112.97	1045.50	158.980	14.0291	14.2307	12.8860	61.2223	-240.56	28.4314	83.2260	80.5714	
8.477248	1546.23	1546.90	1552.18	27.0761	1112.97	1044.27	157.230	14.2396	14.2307	12.9913	61.1398	-239.88	28.6860	82.5557	80.4034	
8.493932	1546.23	1546.59	1552.18	27.2822	1112.97	1042.22	154.208	14.0291	14.2307	13.3072	61.4149	-240.88	29.0135	82.5892	80.1345	
8.510226	1546.23	1546.90	1552.18	27.2822	1112.97	1040.59	159.775	14.1344	14.2307	13.3072	61.6760	-241.88	29.1591	81.6163	80.8065	
8.526446	1546.23	1546.59	1552.18	27.2822	1112.76	1042.22	161.048	14.2396	14.3341	13.3072	61.7998	-241.82	29.3047	83.0920	81.4779	
8.543230	1546.23	1546.59	1552.18	27.2822	1112.76	1043.04	157.867	14.2396	14.3341	13.3072	61.9647	-240.88	29.3411	82.6898	81.4779	
8.559432	1546.23	1546.43	1552.18	27.2822	1112.97	1044.27	158.503	13.6082	14.2307	13.3072	62.1021	-240.38	29.2319	82.4551	81.4779	
8.576649	1546.23	1546.90	1552.18	27.2822	1113.17	1043.86	155.958	14.2396	14.2307	12.9913	61.7998	-240.38	30.0333	82.7233	80.2690	
8.593436	1546.23	1546.59	1552.18	27.2822	1112.76	1040.59	155.480	14.2396	14.3341	13.3072	61.6348	-240.88	29.7418	82.1868	80.2690	
8.609653	1546.23	1546.90	1552.18	27.6942	1112.97	1041.41	154.049	14.0291	14.2307	13.3072	61.5798	-242.38	29.8875	82.0191	79.4957	
8.626892	1546.23	1546.90	1552.18	27.3852	1112.97	1042.22	154.049	14.0291	14.2307	13.3072	61.7998	-244.08	30.0333	81.7842	79.5966	
8.643189	1546.23	1546.90	1552.18	27.3852	1112.97	1040.59	144.663	14.2396	14.2307	13.3072	61.9647	-245.41	30.2156	82.1533	80.1345	
8.666739	1546.23	1546.43	1552.18	27.4882	1112.97	1039.77	140.686	14.2396	14.2307	13.3072	61.9097	-245.92	31.0183	82.4216	79.1592	
8.685171	1546.23	1546.90	1552.18	27.6942	1113.17	1041.61	140.686	14.2396	14.2307	13.3072	61.5798	-246.94	30.3250	81.1463	77.4413	
8.701379	1545.62	1546.90	1552.18	27.6942	1112.97	1043.04	150.867	14.2396	14.2307	13.3072	61.7998	-247.96	30.7628	81.8849	78.7890	
8.717589	1546.23	1546.90	1552.18	27.3852	1112.97	1043.04	148.958	14.0291	14.2307	13.3072	61.6348	-248.47	30.6168	81.6163	79.9329	
8.734351	1546.23	1543.32	1551.72	27.2822	1113.38	1041.00	147.208	14.2396	14.2307	12.9913	61.9647	-247.45	30.7628	82.1533	80.1345	
8.750574	1546.23	1546.43	1552.18	26.8701	1112.97	1038.95	147.049	14.2396	14.2307	13.3072	62.1158	-246.81	30.9087	82.4886	80.5378	
8.768808	1546.23	1546.59	1552.18	26.3551	1113.38	1040.59	144.663	14.2396	14.2307	13.3072	62.4043	-246.17	28.6860	82.6898	80.8065	
8.785104	1546.23	1546.43	1552.18	23.9859	1112.97	1043.04	149.754	14.2396	14.2307	13.3072	61.8547	-246.17	24.0399	82.8574	81.4779	
8.801326	1546.23	1546.43	1551.87	20.3805	1112.97	1045.50	155.321	14.3448	14.3341	13.3072	61.3048	-245.86	20.0189	82.4216	80.4034	
8.819030	1546.23	1546.28	1551.87	17.8053	1112.97	1045.50	157.867	14.3448	14.3341	13.3072	60.8644	-245.92	17.0833	81.6163	79.3274	
8.835327	1546.23	1546.28	1552.18	16.1572	1113.17	1043.04	153.571	14.4501	14.3341	13.3072	60.3139	-245.92	15.0873	81.7505	79.4620	
8.851549	1546.23	1546.28	1552.18	15.3331	1112.97	1041.00	149.594	14.3448	14.3341	13.3072	59.9832	-246.37	13.3792	82.1533	80.4706	
8.874589	1546.23	1546.28	1552.18	14.7150	1113.58	1038.95	144.504	14.4501	14.3341	13.3072	59.4319	-245.86	11.6318	81.6163	80.1345	
8.894086	1546.23	1546.43	1552.18	14.5090	1113.58	1039.77	141.959	14.4501	14.3341	13.3072	59.0321	-247.19	10.1000	81.6163	80.2017	
8.910769	1546.23	1546.28	1551.87	14.0970	1113.38	1040.59	141.959	14.4501	14.3341	13.3072	58.8802	-248.92	9.47925	82.1868	80.6721	
8.927072	1545.62	1546.43	1551.56	14.0970	1112.97	1040.59	145.777	14.2396	14.3341	12.9913	58.6595	-248.98	8.60199	82.4551	80.2354	
8.943297	1545.62	1546.59	1551.72	14.0970	1112.76	1044.27	151.185	14.3448	14.3341	12.8860	58.7975	-248.41	7.65045	82.8239	81.2095	
8.959992	1545.62	1546.28	1551.72	14.0970	1112.97	1046.31	153.571	14.4501	14.3341	13.3072	59.0321	-249.50	7.06429	82.6898	81.5115	
8.976282	1545.62	1546.43	1551.72	14.0970	1112.97	1041.41	143.390	14.3448	14.3341	13.3072	58.9355	-250.01	6.18410	82.5557	81.3437	
8.992516	1545.62	1546.43	1551.72	14.0970	1112.97	1038.95	145.777	14.2396	14.3341	12.8860	58.1350	-249.24	5.37625	81.9184	80.0001	
9.008811	1545.77	1546.59	1551.72	14.0970	1112.97	1042.22	151.026	14.3448	14.3341	12.8860	57.9416	-248.41	4.71454	82.2875	79.3274	
9.026032	1545.77	1546.90	1551.72	14.0970	1112.97	1044.47	149.594	14.2396	14.3341	13.3072	58.4940	-247.45	3.97853	82.2875	79.6638	
9.043255	1546.23	1546.28	1551.72	14.0970	1112.97	1041.41	143.390	14.4501	14.3341	13.3072	58.7700	-246.43	3.53650	81.9855	79.4620	

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 103

CALIBRATION PERFORMED 09-02-78 02:01:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 66 LU 14 FROM 327/ 0 TO 349/95 FILE STARTING T.O.D. 10:50:51.361603 T.C.V. ON T.O.D. 10:50:51.545029

PARAMETER	PFV-1	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN
PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	TIN
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	20/ 56	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89
	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169	
9.060037	1545.62	1546.28	1551.72	14.0970	1113.17	1040.59	146.095	14.2396
9.083439	1545.62	1546.28	1551.72	14.0970	1112.97	1044.47	153.571	14.4501
9.102726	1545.77	1546.28	1551.72	14.0970	1112.97	1043.04	148.481	14.2396
9.118726	1546.23	1546.28	1551.72	14.0970	1112.97	1038.95	151.503	14.3448
9.134954	1546.23	1546.28	1551.56	14.0970	1112.97	1040.59	156.753	14.2396
9.151650	1545.62	1546.28	1551.56	14.0970	1112.97	1043.04	162.321	14.4501
9.167948	1545.62	1546.28	1551.56	14.0970	1112.97	1043.86	160.730	14.4501
9.184175	1545.62	1546.28	1551.56	13.9940	1112.97	1043.86	159.139	14.2396
9.200953	1545.62	1546.28	1551.56	13.9940	1113.38	1043.04	155.480	14.3448
9.217023	1545.62	1546.28	1551.56	14.0970	1113.38	1041.00	151.503	14.2396
9.226597	1545.62	1546.28	1551.56	14.0970	1112.97	1039.77	151.503	14.3448

END FILE



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WLO2-1	WLO2-2	WH20P-1	WH20P-2	WH20C-1	WH20C-2	TOFM	POV	F-A	FCALA 31941A	PFV-1					
PARAMETER	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	POJ PSIA	F-B	LBS	LBS	LBS	FCALB 31941B	PSIA
UNITS																
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56	
-184891	2.98381	3.01347	14.4429	14.5355	14.7457	14.5797	-287.67	864.663	828.424	14.5118	94.1809	94.0901	-.28358	.365284	1500.60	
-168217	2.97777	3.00899	14.4645	14.5442	14.7359	14.5797	-287.80	864.663	826.268	14.5118	94.5905	94.2965	-.28358	-.25355	1500.45	
-151900	2.97656	3.01179	14.4752	14.5530	14.7401	14.5811	-287.67	864.355	825.960	14.5118	95.0001	94.9155	.335144	-.45983	1500.45	
-134685	2.98140	3.01768	14.4591	14.5635	14.7568	14.5753	-287.70	864.048	826.730	14.5118	95.4097	95.1218	-.28358	-.45983	1500.45	
-117992	2.98140	3.01768	14.3891	14.5635	14.7694	14.5665	-287.80	864.048	825.652	14.5118	94.1809	94.0901	-.28358	-.66611	1499.99	
-101678	2.98381	3.01768	14.3206	14.5565	14.7624	14.5563	-287.70	864.048	828.578	14.5118	92.9522	93.2648	-.28358	.365284	1499.84	
-085475	2.98170	3.01179	14.2708	14.5495	14.7359	14.5344	-287.83	864.048	828.116	14.4091	93.3618	93.2648	-.69607	-.25355	1500.45	
-068698	2.96690	2.99667	14.2923	14.5512	14.7233	14.5227	-287.96	864.048	824.882	14.5118	93.9761	93.4711	-.28358	-.45983	1500.45	
-052475	2.96267	2.99219	14.3824	14.5495	14.7122	14.5286	-288.05	864.048	827.500	14.5118	93.3618	93.2648	-.28358	-.45983	1500.45	
-036257	2.95965	2.98658	14.4376	14.5442	14.7066	14.5373	-288.31	864.202	851.523	14.5118	94.5905	94.2965	-.48983	-.25355	1500.45	
-019495	2.79235	2.79835	14.4497	14.5442	14.7122	14.5490	-288.21	864.202	909.119	14.5118	95.4097	96.5662	-.28358	.365284	1500.45	
-003264	2.22342	2.20871	14.4671	14.5302	14.7233	14.5578	-288.44	864.509	888.945	14.5118	95.4097	95.7408	-.28358	-.25355	1500.45	
.021179	1.12631	1.10732	14.4577	14.5215	14.7345	14.5811	-288.69	865.278	893.719	14.5118	94.1809	94.2965	-.69607	.365284	1500.45	
.039671	.525967	.531691	14.4120	14.5320	14.7345	14.5840	-288.72	865.431	858.761	14.7171	92.5426	93.2648	-.48983	.365284	1500.45	
.055889	.207979	.298639	14.3945	14.5442	14.7359	14.5797	-288.72	865.892	858.915	14.5118	94.5905	94.9155	-.28358	-.25355	1499.23	
.072204	.083561	.237575	14.3851	14.5442	14.7471	14.5724	-289.10	866.507	884.633	19.7475	94.1809	94.0901	-.48983	-.25355	1495.10	
.089415	.055779	.192757	14.3461	14.5372	14.7568	14.5665	-289.33	865.892	858.761	36.5838	93.9761	94.0901	-.48983	-.25355	1488.68	
.105630	.053363	.163626	14.3044	14.5372	14.7527	14.5622	-289.46	866.507	863.843	50.6483	92.9522	93.2648	-.48983	-.25355	1482.26	
.122403	.087185	.170628	14.3246	14.5442	14.7415	14.5563	-289.58	866.661	886.019	57.2186	92.9522	93.2648	-.48983	-.25355	1475.38	
.138638	.113760	.273429	14.3085	14.5512	14.7345	14.5622	-289.61	867.122	857.683	58.0399	92.3378	92.4394	.335144	-1.0787	1468.81	
.154873	.129765	.390235	14.2869	14.5460	14.7401	14.5753	-289.58	867.122	867.231	57.5266	90.9042	91.6141	-.28358	-.25355	1462.69	
.171168	.135503	.416286	14.2990	14.5372	14.7568	14.5913	-289.71	867.737	886.943	56.7053	90.9042	91.6141	-.28358	-.45983	1457.19	
.188385	.162077	.379311	14.2721	14.5302	14.7624	14.5913	-289.97	867.737	858.761	56.2947	90.9042	91.6141	-.28358	-.45983	1451.53	
.205077	.191068	.325530	14.2708	14.5320	14.7513	14.5797	-289.90	867.737	869.695	56.2947	89.6754	89.9634	-.28358	-.25355	1448.17	
.229583	.240593	.267267	14.2735	14.5372	14.7247	14.5578	-290.00	867.737	876.009	55.8840	89.2658	89.3443	.335144	-.45983	1447.87	
.248394	.226098	.227771	14.2493	14.5442	14.7122	14.5490	-289.84	867.891	858.145	55.6787	90.6994	90.7887	.335144	-.25355	1448.48	
.264891	.251464	.266146	14.2506	14.5320	14.7122	14.5432	-290.00	868.044	887.097	55.5760	90.6994	90.9951	-.28358	-.45983	1450.31	
.281108	.302198	.300320	14.2493	14.5442	14.7122	14.5373	-290.12	868.352	872.929	55.5760	89.2658	89.3443	.335144	-.25355	1450.31	
.297316	.297366	.317406	14.2560	14.5565	14.7136	14.5344	-290.12	868.352	858.299	55.4734	89.2658	89.3443	.335144	-.25355	1451.53	
.685887	.238177	.295278	14.2923	14.5477	14.7289	14.5330	-290.00	868.352	886.635	55.1654	89.8802	89.9634	-.28358	-.25355	1451.69	
.320298	.154830	.262785	14.3058	14.5302	14.7345	14.5271	-290.25	868.352	875.393	55.0627	89.8802	89.9634	-.28358	-.45983	1452.76	
.336997	.118591	.223289	14.2493	14.5233	14.7401	14.5330	-290.25	868.966	858.761	54.7547	89.0610	89.1380	.335144	-.45983	1452.91	
.353293	.148790	.179592	14.1955	14.5093	14.7513	14.5461	-290.38	868.966	884.171	54.7547	89.2658	89.3443	.335144	-.25355	1453.98	
.369516	.168117	.187155	14.1632	14.5005	14.7568	14.5563	-290.38	868.966	878.627	54.7547	89.8802	90.1697	-.28358	-.25355	1454.29	
.386212	.191068	.231132	14.2278	14.4760	14.7513	14.5505	-290.60	868.966	859.377	54.6521	89.6754	89.9634	-.28358	-.45983	1455.20	
.402520	.181404	.268387	14.2600	14.5320	14.7457	14.5330	-290.92	868.966	881.553	54.6521	89.2658	89.3443	.335144	-.45983	1455.36	
.426428	.165701	.346818	14.2762	14.5075	14.7596	14.5330	-290.51	868.966	870.465	54.6521	88.8562	89.1380	.128901	-.45983	1456.43	
.444654	.143958	.312645	14.2600	14.4760	14.7513	14.5286	-290.73	868.966	866.153	54.6521	89.2658	89.5507	-.28358	-.66611	1457.04	
.460769	.131879	.266986	14.2130	14.4673	14.7303	14.5271	-290.63	869.120	887.251	54.6521	89.2658	89.3443	.335144	.365284	1457.65	
.476983	.147582	.222169	14.2022	14.4760	14.7233	14.5286	-290.63	869.120	873.545	54.6521	90.6994	90.7887	-.28358	-.45983	1457.95	
.494289	.131879	.189676	14.2022	14.4953	14.7136	14.5330	-290.76	869.120	863.227	53.8308	89.8802	89.9634	-.28358	.365284	1458.26	
.510504	.142750	.195278	14.2062	14.5163	14.6954	14.5227	-290.92	869.120	884.171	53.4202	90.6994	90.9951	-.28358	-.45983	1458.87	
.527201	.203449	.276730	14.2170	14.5163	14.6731	14.5140	-291.02	869.120	878.473	53.4202	89.2658	89.9634	-.28358	.365284	1458.87	
.544500	.226098	.317687	14.2385	14.5163	14.6675	14.5052	-290.89	869.274	862.611	53.8308	89.6754	89.9634	-.28358	-.25355	1459.18	
.560702	.192275	.281272	14.2762	14.5163	14.6731	14.4935	-290.99	868.966	880.475	53.8308	90.6994	90.7887	-.28358	-.45983	1459.64	
.577015	.181706	.236735	14.2883	14.5163	14.6787	14.4862	-290.99	869.120	881.707	55.8840	91.7234	91.6141	-.28358	-.25355	1460.09	
.593235	.188652	.249900	14.2964	14.5163	14.6619	14.4877	-291.24	869.120	810.098	93.6631	93.3618	93.2648	-.48983	.365284	1452.15	
.609456	.468892	.608722	14.2977	14.5163	14.6452	14.4862	-291.56	869.120	772.060	180.309	183.882	181.577	-.28358	-.66611	1415.46	
.634978	.189667	.202468	14.2775	14.5040	14.6285	14.4877	-291.75	868.966	785.612	268.289	452.780	446.722	-1.1086	-.45983	1395.89	

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WL02-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PFV-1
PARAMETER	WL02-2		WH20P-2		WH20C-2		PGOT		POJ		F-B		FCALB 31941B		
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56
.651472	2.82074	2.91151	14.2547	14.5075	14.6452	14.4965	-291.65	868.966	788.538	490.138	966.615	952.456	-1.1086	-1.0787	1403.23
.668151	3.55396	3.61039	14.2775	14.5250	14.6899	14.5096	-291.46	868.352	812.562	711.783	1375.39	1356.05	-.28358	-.45983	1411.18
.684464	3.86319	3.89974	14.2977	14.5460	14.7261	14.5227	-291.11	867.737	818.260	769.991	1508.51	1496.36	-.48983	-.45983	1415.46
.700668	3.88010	3.90815	14.2789	14.5442	14.7596	14.5578	-291.02	867.737	817.028	760.649	1512.81	1511.22	.335144	-.45983	1418.52
.716964	3.79675	3.82439	14.2721	14.5530	14.7806	14.5913	-291.27	867.122	815.488	744.942	1494.79	1499.66	-.48983	-.25355	1419.74
.733194	3.70646	3.74232	14.3259	14.5740	14.7903	14.6089	-291.27	866.661	812.408	736.319	1484.34	1490.59	-.48983	-.45983	1420.96
.749415	3.63368	3.67650	14.3838	14.6020	14.8127	14.6264	-291.27	866.507	809.636	733.033	1479.02	1484.19	-.28358	.365284	1421.11
.766187	3.58295	3.62580	14.4160	14.6002	14.8461	14.6395	-291.53	866.046	809.636	732.212	1481.47	1485.63	.335144	-.45983	1421.73
.782409	3.55517	3.59498	14.4080	14.5740	14.8685	14.6585	-291.43	865.892	811.330	733.855	1484.75	1488.93	.335144	-.45983	1422.18
.799100	3.54047	3.57930	14.4322	14.5530	14.8652	14.6833	-291.50	865.431	811.946	735.600	1489.26	1493.06	-.28358	-.45983	1422.18
.815403	3.52859	3.56753	14.4443	14.5512	14.8908	14.7096	-291.53	865.278	811.484	735.497	1489.87	1493.68	-.69607	-.66611	1422.18
.840814	3.51530	3.55577	14.4120	14.5565	14.9243	14.7432	-291.53	865.278	810.868	734.779	1490.08	1494.71	.335144	-.25355	1421.88
.860265	3.51168	3.54849	14.3475	14.5530	14.9410	14.7607	-291.65	865.278	811.946	735.703	1493.76	1498.01	-.48983	-.25355	1422.18
.878038	3.50926	3.54316	14.3138	14.5547	14.9522	14.7724	-291.78	864.663	811.946	735.908	1493.97	1498.01	-.48983	-.45983	1422.18
.894246	3.50806	3.53952	14.3138	14.5530	14.9578	14.7899	-292.00	864.663	810.252	735.189	1493.35	1497.39	-.48983	-.25355	1421.57
.911937	3.50443	3.53756	14.3152	14.5530	14.9648	14.8015	-292.00	864.355	809.482	733.855	1493.15	1497.19	-.48983	-.25355	1421.27
.928246	3.50353	3.53532	14.3071	14.5530	14.9703	14.8132	-292.04	864.202	809.636	734.676	1494.79	1499.66	-.48983	-.45983	1421.27
.944454	3.50111	3.53056	14.3569	14.5582	14.9745	14.8132	-292.00	864.202	810.252	734.676	1493.76	1498.01	-.48983	.365284	1421.11
.961147	3.49507	3.52300	14.4698	14.5635	14.9592	14.8015	-292.04	864.048	811.484	733.855	1494.79	1498.04	-.28358	-.45983	1420.96
.977457	3.49477	3.52412	14.4698	14.5740	14.9522	14.7826	-292.00	864.048	811.484	735.087	1496.42	1500.70	-.48983	.365284	1420.96
.993666	3.49235	3.51991	14.4228	14.5880	14.9466	14.7607	-292.16	864.048	811.330	732.623	1492.53	1496.36	-.48983	-.66611	1420.50
260 1.009956	3.48390	3.51235	14.3515	14.5880	14.9299	14.7388	-292.04	864.048	810.714	731.391	1490.49	1494.92	-.28358	-.25355	1420.35
1.026181	3.47816	3.50759	14.2883	14.5810	14.9187	14.7271	-292.04	864.048	809.482	730.672	1490.69	1494.92	-.28358	-.66611	1419.89
1.051125	3.47061	3.49470	14.3044	14.5740	14.9201	14.7213	-292.04	864.048	807.018	728.619	1488.23	1493.06	-.48983	-1.2849	1419.74
1.067978	3.46366	3.48938	14.3690	14.5792	14.9145	14.7198	-292.51	864.048	807.172	728.106	1488.23	1493.06	-.48983	-.66611	1419.74
1.084166	3.46095	3.48574	14.3959	14.5775	14.9075	14.7198	-292.39	864.048	809.482	728.927	1489.26	1493.47	-.48983	-.45983	1419.13
1.100858	3.46336	3.48742	14.4268	14.5652	14.8908	14.7227	-292.29	864.048	809.482	728.927	1489.05	1493.27	-.48983	-.45983	1418.82
1.117159	3.46729	3.48938	14.4645	14.5477	14.8852	14.7256	-292.55	864.048	811.330	730.159	1491.51	1495.74	-.28358	.365284	1418.52
1.133374	3.47061	3.49078	14.4752	14.5442	14.8964	14.7213	-292.55	863.433	812.100	731.391	1494.17	1498.01	-.48983	-.25355	1418.52
1.151150	3.46457	3.49050	14.4645	14.5530	14.9089	14.7140	-292.39	864.048	811.176	729.748	1491.30	1495.54	-.28358	-.45983	1417.90
1.167362	3.46246	3.48938	14.4322	14.5460	14.9131	14.7081	-292.55	864.048	813.332	730.980	1493.35	1497.39	-.48983	-.66611	1417.90
1.183571	3.46336	3.49358	14.3730	14.5477	14.9034	14.7037	-292.67	863.433	813.948	731.802	1494.99	1499.66	-.69607	.365284	1417.29
1.200335	3.46578	3.49470	14.3354	14.5460	14.8908	14.7023	-292.77	863.433	813.024	730.672	1493.35	1496.98	-1.1086	-.45983	1417.29
1.217555	3.46970	3.49526	14.3031	14.5372	14.8964	14.7081	-292.67	863.433	813.024	730.980	1493.35	1498.22	-.48983	-.45983	1417.29
1.233858	3.46970	3.49638	14.2708	14.5320	14.8964	14.7198	-292.55	863.433	812.716	730.159	1492.33	1496.57	-.69607	-.45983	1416.07
1.257303	3.46578	3.49274	14.2493	14.5372	14.9034	14.7315	-292.93	863.433	813.332	730.980	1494.99	1499.66	-.90231	-.66611	1416.68
1.275311	3.46819	3.49274	14.2869	14.5512	14.9075	14.7432	-292.93	864.048	813.024	730.570	1493.97	1498.01	-.28358	-1.0787	1416.68
1.293093	3.46487	3.48938	14.3313	14.5530	14.9034	14.7475	-292.80	864.048	811.330	729.748	1493.15	1497.19	-.48983	-.45983	1416.22
1.309327	3.46457	3.48574	14.3380	14.5512	14.9075	14.7505	-292.80	863.433	812.562	730.570	1494.17	1498.22	-.48983	-.45983	1416.07
1.318530	3.47574	3.48714	14.2923	14.5565	14.9145	14.7563	-292.80	863.433	814.410	730.775	1494.38	1499.66	-1.1086	-1.0787	1416.07
1.335305	3.49235	3.49162	14.2600	14.5477	14.9243	14.7519	-292.90	863.433	815.796	731.494	1496.42	1500.49	-1.1086	-1.0787	1416.07
1.351527	3.50202	3.49470	14.2708	14.5530	14.9299	14.7432	-292.93	863.433	814.564	730.980	1494.99	1499.66	-.48983	-.45983	1416.22
1.367850	3.49598	3.49022	14.3138	14.5547	14.9299	14.7388	-292.80	863.433	813.794	729.748	1494.17	1498.22	-.48983	-.66611	1416.22
1.384030	3.48269	3.48462	14.3515	14.5512	14.9299	14.7432	-292.93	863.433	814.410	730.159	1494.99	1499.66	-.90231	-.66611	1416.07
1.401262	3.47182	3.48266	14.3690	14.5460	14.9355	14.7505	-292.93	863.587	813.332	731.391	1496.42	1500.49	-1.1086	-.25355	1416.22
1.417946	3.46940	3.48574	14.3730	14.5460	14.9201	14.7446	-292.80	863.433	814.410	731.288	1496.42	1501.32	-.48983	-.25355	1416.38
1.434252	3.47242	3.49078	14.3354	14.5600	14.8964	14.7315	-292.80	863.433	814.564	731.802	1497.24	1501.32	-.48983	-.45983	1416.68
1.457822	3.46729	3.49302	14.2654	14.5460	14.8908	14.7198	-292.93	863.433	810.868	730.672	1494.99	1499.66	-.48983	-.45983	1416.68
1.477296	3.45642	3.48742	14.2654	14.5180	14.9020	14.7198	-293.25	864.048	810.252	729.338	1494.17	1498.04	-.48983	-1.0787	1416.68



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WL02-1	WM20P-1	WM20C-1	TOFM	POV	F-A	FCALA 31941A	PFV-1
PARAMETER	WL02-2	WM20P-2	WM20C-2	PGOT	POJ	F-B	FCALB 31941B	
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	11/ 32
1.493526	3.45279	3.48630	14.3354	14.5233	14.8936	14.7081	-292.93	864.048
1.509863	3.45491	3.48714	14.3784	14.5320	14.8824	14.7037	-293.02	864.048
1.526033	3.45732	3.48714	14.4120	14.5372	14.8741	14.7081	-292.93	863.587
1.543235	3.45642	3.48630	14.4429	14.5390	14.8810	14.7096	-293.44	863.433
1.559925	3.45128	3.48406	14.4228	14.5512	14.9020	14.7154	-293.31	863.433
1.576234	3.45068	3.48154	14.4174	14.5565	14.9187	14.7198	-293.28	864.048
1.592443	3.45732	3.48602	14.4389	14.5565	14.9243	14.7213	-293.57	864.048
1.610224	3.46215	3.49302	14.4497	14.5460	14.9243	14.7213	-293.44	864.048
1.626453	3.46095	3.49442	14.4429	14.5372	14.9131	14.7198	-293.06	864.048
1.643660	3.45491	3.49190	14.3569	14.5372	14.9020	14.7213	-293.06	864.048
1.668233	3.45551	3.48938	14.3461	14.5600	14.8796	14.7140	-293.31	863.433
1.686917	3.46457	3.49050	14.3744	14.5740	14.8685	14.6994	-293.44	864.048
1.703425	3.46487	3.49078	14.3354	14.5600	14.8573	14.6848	-293.47	864.048
1.719738	3.46457	3.49162	14.2708	14.5390	14.8475	14.6848	-293.47	864.048
1.735947	3.46336	3.49274	14.2291	14.5233	14.8573	14.6935	-293.53	864.048
1.752255	3.46578	3.49470	14.2237	14.5163	14.8699	14.7023	-293.41	864.048
1.768476	3.47182	3.50087	14.2816	14.5320	14.8755	14.7096	-293.31	863.433
1.784694	3.47665	3.50395	14.3623	14.5442	14.8810	14.7140	-293.57	864.048
1.801461	3.47665	3.49975	14.3891	14.5372	14.8964	14.7256	-293.53	864.048
1.817685	3.46970	3.49078	14.3690	14.5302	14.9089	14.7329	-293.82	864.048
1.833904	3.45974	3.48210	14.3676	14.5302	14.9243	14.7446	-293.57	864.048
1.850218	3.45128	3.47482	14.3703	14.5372	14.9187	14.7432	-293.57	864.048
1.875076	3.45249	3.47370	14.3246	14.5372	14.9131	14.7329	-293.57	863.433
1.894279	3.44947	3.47370	14.2816	14.5233	14.9187	14.7256	-293.82	864.048
1.910419	3.44645	3.47482	14.2923	14.5110	14.9187	14.7198	-294.04	864.048
1.926619	3.44766	3.47678	14.2775	14.5040	14.9075	14.7037	-294.04	864.048
1.943392	3.44524	3.47594	14.2789	14.5040	14.9020	14.7023	-294.07	864.048
1.959613	3.43830	3.47370	14.2869	14.5233	14.8922	14.6979	-294.04	864.048
1.975855	3.43437	3.47146	14.2775	14.5390	14.8908	14.6906	-294.07	864.048
1.992138	3.43679	3.47286	14.2560	14.5442	14.8741	14.6848	-293.95	864.048
2.009351	3.44343	3.47986	14.2493	14.5442	14.8461	14.6673	-294.07	864.048
2.026040	3.45249	3.48378	14.2735	14.5390	14.8029	14.6439	-294.07	864.048
2.042357	3.45974	3.48182	14.2708	14.5233	14.7847	14.6673	-294.55	864.048
2.058573	3.46699	3.48378	14.2210	14.4900	14.7903	14.6454	-294.07	864.048
2.084365	3.46940	3.48378	14.2184	14.4830	14.8182	14.6600	-294.30	863.433
2.101032	3.46457	3.48070	14.2291	14.5093	14.8238	14.6600	-294.07	864.048
2.118245	3.45491	3.47678	14.2439	14.5233	14.8350	14.6600	-294.30	864.048
2.135009	3.45370	3.47678	14.2331	14.5250	14.8475	14.6600	-294.33	864.048
2.152234	3.46397	3.48070	14.2103	14.5233	14.8573	14.6556	-294.30	864.048
2.169927	3.46850	3.48154	14.2453	14.5302	14.8601	14.6497	-294.46	864.048
2.186232	3.47061	3.47594	14.2506	14.5372	14.8573	14.6512	-294.33	864.048
2.202440	3.46850	3.47258	14.2170	14.5302	14.8517	14.6512	-294.33	864.048
2.219134	3.46850	3.47650	14.2009	14.5233	14.8573	14.6497	-294.49	864.048
2.235426	3.46850	3.48490	14.2116	14.5040	14.8461	14.6512	-294.43	864.048
2.252636	3.46457	3.48826	14.2062	14.4970	14.8461	14.6556	-294.58	864.048
2.268941	3.45974	3.49274	14.2170	14.4900	14.8475	14.6556	-294.55	864.048
2.292973	3.45974	3.49302	14.2869	14.5093	14.8489	14.6512	-294.58	863.433
2.310968	3.46125	3.49078	14.2883	14.5180	14.8364	14.6439	-294.74	864.048
2.314243	3.45611	3.48490	14.3138	14.5250	14.8238	14.6322	-294.58	864.048

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WLO2-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PFV-1	
PARAMETER	WLO2-2		WH20P-2		WH20C-2		PGOT		POJ		F-B		FCALB 31941B			
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA	
VEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56	
2.330465	3.45249	3.47986	14.3313	14.5163	14.8141	14.6264	-294.68	864.048	812.562	730.570	1498.88	1503.38	-1.1086	-.66611	1420.96	
2.347156	3.45249	3.47958	14.2816	14.5023	14.8196	14.6205	-294.58	863.433	812.562	731.391	1500.73	1504.62	-.48983	-.365284	1420.96	
2.363449	3.44887	3.47986	14.2278	14.5023	14.8294	14.6118	-294.58	863.433	812.562	731.596	1502.36	1506.47	-1.1086	-.45983	1420.96	
2.379659	3.44645	3.48182	14.2130	14.5093	14.8252	14.6030	-294.58	864.048	812.716	732.623	1505.23	1509.57	-.48983	-.66611	1420.96	
2.395956	3.44766	3.48490	14.2009	14.5110	14.8238	14.5972	-294.74	864.048	813.332	732.212	1504.00	1507.92	-.48983	-.45983	1421.11	
2.412180	3.45491	3.48630	14.2170	14.5023	14.8308	14.6045	-294.71	864.048	811.946	731.802	1504.00	1507.92	-.48983	-.45983	1421.11	
2.428393	3.46004	3.48630	14.2278	14.4970	14.8350	14.6220	-294.71	864.048	810.252	730.980	1502.36	1506.47	-.48983	-.45983	1420.96	
2.445178	3.46215	3.48378	14.2278	14.5005	14.8238	14.6381	-294.84	864.048	810.868	730.980	1502.98	1507.09	-1.1086	-.66611	1421.11	
2.461385	3.46336	3.48294	14.2426	14.5093	14.8294	14.6497	-295.06	864.048	812.100	731.699	1502.98	1507.51	-1.1086	-.365284	1420.96	
2.484425	3.45974	3.48434	14.2600	14.5267	14.8364	14.6497	-295.06	864.048	812.100	731.802	1504.41	1508.12	-.48983	-.25355	1420.96	
2.503050	3.45249	3.48294	14.2506	14.5250	14.8406	14.6497	-295.09	864.048	810.098	730.980	1502.36	1507.09	-1.1086	-.45983	1421.11	
2.519122	3.44404	3.47678	14.2641	14.5233	14.8294	14.6439	-295.06	864.048	809.020	728.927	1500.52	1504.82	-.48983	-.45983	1421.11	
2.535896	3.44162	3.47146	14.2829	14.5267	14.8266	14.6381	-295.22	864.048	809.020	729.030	1501.34	1506.27	-1.1086	-.25355	1420.96	
2.552127	3.44524	3.47033	14.2614	14.5040	14.8350	14.6497	-295.32	864.048	810.252	729.748	1501.54	1506.27	-.69607	-.25355	1420.96	
2.568334	3.45038	3.47286	14.2493	14.4970	14.8406	14.6600	-295.48	864.048	811.946	731.494	1504.21	1507.92	-1.1086	-.45983	1420.96	
2.586104	3.45611	3.47734	14.2869	14.5058	14.8420	14.6629	-295.32	862.818	812.408	732.315	1506.26	1509.57	-.48983	-.45983	1420.96	
2.603341	3.45491	3.48042	14.3192	14.5302	14.8420	14.6600	-295.44	863.433	812.562	731.802	1505.23	1509.57	-.48983	-.45983	1420.96	
2.620023	3.45158	3.47818	14.3031	14.5337	14.8364	14.6497	-295.06	863.433	811.946	730.570	1503.18	1507.92	-.48983	-.25355	1420.96	
2.636325	3.44826	3.47482	14.2331	14.5198	14.8294	14.6395	-295.19	864.048	810.714	729.338	1501.14	1505.44	-.48983	-.25355	1420.96	
2.652541	3.44645	3.47146	14.1874	14.4830	14.8141	14.6410	-295.22	864.048	810.098	728.927	1500.52	1504.62	-.48983	-.365284	1420.96	
2.669230	3.44766	3.47033	14.1632	14.4603	14.8127	14.6527	-295.25	863.587	810.098	729.748	1501.14	1505.44	-.48983	-.45983	1420.96	
2.692741	3.44645	3.46809	14.1915	14.4725	14.8015	14.6556	-295.57	864.048	810.868	729.748	1501.54	1506.27	-.48983	-.45983	1420.96	
2.713201	3.44434	3.46921	14.2345	14.4883	14.8238	14.6570	-295.44	863.433	811.946	731.494	1504.00	1508.12	-.48983	-.66611	1420.96	
2.729885	3.44766	3.47202	14.2345	14.4708	14.8573	14.6731	-295.51	864.048	812.716	731.391	1504.41	1508.74	-.48983	-.04727	1420.96	
2.746193	3.45611	3.47734	14.3031	14.4603	14.8685	14.6921	-295.57	864.048	813.178	732.417	1506.26	1510.39	-.48983	-.365284	1420.96	
2.762399	3.46034	3.48210	14.3098	14.4673	14.8573	14.7023	-295.57	864.048	812.562	732.212	1507.07	1511.22	-.28358	-.66611	1420.96	
2.779168	3.45611	3.47958	14.2453	14.4883	14.8406	14.7052	-295.35	864.048	813.178	731.802	1505.44	1509.57	-.48983	-.365284	1420.96	
2.795390	3.45038	3.47818	14.2399	14.5005	14.8364	14.6964	-295.32	864.048	813.948	732.315	1506.46	1510.39	-.28358	-.25355	1420.96	
2.811599	3.45370	3.48070	14.2439	14.5093	14.8406	14.6731	-295.57	864.048	812.562	731.391	1505.03	1509.57	-.48983	-.365284	1420.96	
2.828379	3.45974	3.48182	14.2062	14.5093	14.8517	14.6570	-295.60	864.048	812.716	730.570	1502.98	1507.30	-.90231	-.25355	1420.96	
2.844598	3.46004	3.48182	14.1982	14.4900	14.8796	14.6541	-295.83	864.048	814.410	732.212	1505.64	1509.57	-.48983	-.45983	1420.96	
2.860870	3.45491	3.47930	14.2439	14.4813	14.8922	14.6556	-295.60	864.048	813.794	731.802	1507.07	1511.22	-.28358	-.45983	1420.96	
2.877100	3.44645	3.47510	14.2453	14.4900	14.8838	14.6439	-295.76	864.048	813.794	731.391	1506.87	1511.22	-.28358	-.45983	1420.96	
2.901513	3.44555	3.47622	14.2385	14.5093	14.8489	14.6278	-295.83	864.048	814.410	732.212	1507.28	1511.22	-.28358	-.45983	1420.96	
2.922942	3.45611	3.47846	14.2009	14.5093	14.8294	14.6205	-295.86	864.048	814.410	731.494	1507.07	1511.22	-.48983	-.66611	1419.13	
2.940249	3.46246	3.48378	14.1874	14.4953	14.8350	14.6220	-296.11	864.048	813.332	730.570	1504.00	1508.74	-.48983	-.45983	1420.50	
2.956455	3.46850	3.48378	14.1901	14.4883	14.8406	14.6293	-296.11	864.048	811.946	729.954	1503.59	1508.74	-.48983	-.45983	1420.50	
2.973157	3.47393	3.47510	14.2170	14.5023	14.8364	14.6381	-293.82	864.048	812.100	729.748	1502.98	1507.09	-1.1086	-.45983	1420.96	
2.989461	3.47786	3.46697	14.2439	14.5163	14.8182	14.6322	-296.21	863.433	812.716	729.030	1503.18	1507.92	-.90231	-.45983	1420.96	
3.005670	3.47061	3.46165	14.2493	14.5233	14.8127	14.6278	-296.21	864.048	812.716	729.030	1502.98	1507.09	-1.1086	-.66611	1420.96	
3.021981	3.45762	3.46165	14.2439	14.5040	14.8294	14.6278	-296.02	864.048	811.484	728.927	1502.16	1506.27	-1.1086	-.45983	1420.96	
3.038218	3.44766	3.46137	14.2278	14.4918	14.8573	14.6278	-295.98	864.048	811.330	729.748	1502.36	1507.09	-1.1086	-.45983	1420.96	
3.055442	3.44283	3.46249	14.2331	14.4953	14.8866	14.6381	-296.11	864.048	810.868	729.748	1504.00	1508.33	-1.1086	-.87239	1420.96	
3.072198	3.43800	3.46221	14.2291	14.5093	14.9131	14.6439	-296.11	864.048	809.482	728.516	1501.95	1506.47	-1.1086	-.45983	1420.96	
3.088430	3.43075	3.45885	14.2439	14.5075	14.9243	14.6439	-295.98	864.048	808.866	728.106	1501.14	1505.65	-.48983	-.25355	1421.11	
3.112482	3.43800	3.46137	14.2170	14.4953	14.9243	14.6512	-295.95	864.048	810.868	730.672	1504.82	1508.54	-1.1086	-.365284	1420.96	
3.131382	3.45249	3.46725	14.1861	14.4743	14.9187	14.6600	-295.95	864.048	810.714	731.391	1506.46	1510.60	-.48983	-.45983	1420.96	
3.147425	3.45370	3.46921	14.2062	14.4743	14.9355	14.6731	-296.02	864.048	810.714	729.851	1504.00	1508.74	-.48983	-.45983	1420.96	
3.164200	3.45249	3.47033	14.2345	14.4900	14.9410	14.6746	-295.98	864.048	811.330	731.083	1506.46	1511.22	-.28358	-.365284	1420.96	

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104 CALIBRATION PERFORMED 09-01-78 13:24:56 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WLO2-1		WH20P-1		WH20C-1		TOFM	POV		F-A		FCALA 31941A		PFV-1	
PARAMETER	WLO2-2		WH20P-2		WH20C-2		PGOT	PSIA		F-B		FCALB 31941B		PSIA	
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56
3.180431	3.45491	3.47370	14.2923	14.5093	14.9243	14.6687	-296.24	864.048	811.330	731.391	1507.28	1511.22	-.28358	-.45983	1420.96
3.196636	3.45370	3.47594	14.3313	14.5215	14.8908	14.6497	-296.08	864.048	812.562	732.315	1508.71	1512.25	-.28358	.365284	1420.96
3.213428	3.45611	3.47930	14.2923	14.5233	14.8643	14.6381	-295.95	864.048	812.562	733.033	1508.92	1512.87	-.48983	-.25355	1420.96
3.229649	3.45891	3.47930	14.2668	14.4970	14.8629	14.6381	-295.86	864.048	810.868	731.802	1507.07	1511.22	-.28358	-.25355	1420.96
3.245865	3.44796	3.47594	14.2762	14.4883	14.8629	14.6381	-295.98	864.048	809.636	730.980	1506.46	1511.22	.335144	-.66611	1421.11
3.262172	3.44283	3.47286	14.2614	14.4988	14.8573	14.6322	-296.02	864.048	808.404	729.748	1505.23	1509.57	-.28358	-.45983	1421.11
3.278355	3.44283	3.46921	14.2560	14.5110	14.8406	14.6264	-296.37	864.048	808.250	729.030	1505.23	1509.57	-.48983	-.25355	1421.11
3.295060	3.44645	3.46865	14.2600	14.5163	14.8238	14.6162	-296.37	864.048	809.482	730.570	1507.28	1511.63	-.48983	-.45983	1421.11
2.318634	3.45007	3.47286	14.2829	14.5093	14.8015	14.6103	-296.33	864.048	810.714	730.775	1506.46	1511.22	-.28358	.365284	1421.42
3.329218	3.45974	3.47986	14.3031	14.4900	14.8071	14.6103	-296.24	864.048	812.716	733.855	1511.37	1515.55	-.48983	-.25355	1421.27
3.345900	3.46608	3.48490	14.2990	14.4883	14.8071	14.6103	-296.11	864.048	813.170	734.265	1512.81	1516.58	-1.1086	-.25355	1421.11
3.363102	3.46095	3.48182	14.2708	14.4883	14.7903	14.6089	-296.11	864.048	812.100	732.623	1510.56	1514.73	-.28358	-.25355	1421.11
3.380316	3.45128	3.47930	14.2547	14.4900	14.7680	14.5913	-296.59	864.048	812.716	732.623	1509.74	1513.90	-.48983	.365284	1421.11
3.397095	3.44645	3.47678	14.2399	14.4883	14.7471	14.5811	-296.33	864.048	811.330	732.212	1508.92	1512.87	-.48983	.365284	1421.11
3.413326	3.44283	3.47174	14.2358	14.4620	14.7568	14.5913	-296.11	864.048	810.098	730.159	1505.44	1509.78	-.28358	.365284	1420.96
3.430016	3.44887	3.46697	14.3138	14.4533	14.7847	14.6103	-296.24	863.433	809.636	729.954	1504.82	1509.78	-.28358	-.25355	1420.96
3.446324	3.45038	3.46585	14.3569	14.4533	14.8015	14.6381	-296.78	864.048	809.482	728.927	1504.41	1508.74	-.48983	-.45983	1420.96
3.462529	3.45128	3.46725	14.3313	14.4603	14.8127	14.6600	-296.75	864.048	810.868	730.159	1506.46	1511.22	-.28358	-.66611	1420.96
3.479229	3.45128	3.47174	14.2721	14.4830	14.8127	14.6775	-296.49	864.048	811.484	730.980	1510.35	1513.70	-.48983	-.25355	1421.11
3.496536	3.45007	3.47370	14.2385	14.4883	14.8238	14.6862	-296.59	864.048	812.254	731.083	1509.74	1514.52	-.48983	.365284	1421.11
3.520132	3.45128	3.47482	14.2385	14.4725	14.8573	14.6906	-296.59	864.048	811.946	732.212	1510.97	1515.35	-.28358	.365284	1420.96
3.538743	3.45007	3.47033	14.2331	14.4760	14.8643	14.6746	-296.37	863.433	810.252	730.570	1508.10	1512.87	-.48983	-.45983	1420.96
3.554862	3.45007	3.46725	14.2062	14.4918	14.8573	14.6600	-296.33	864.048	810.252	729.338	1506.26	1510.39	-.48983	.365284	1421.11
3.571063	3.45611	3.46921	14.1901	14.4813	14.8350	14.6410	-296.49	864.048	812.562	730.980	1507.89	1512.04	-.28358	-.66611	1420.96
3.587373	3.46336	3.47818	14.1968	14.4708	14.8182	14.6220	-296.49	864.048	814.410	733.855	1512.81	1517.00	-.69607	-.45983	1420.96
3.603589	3.46457	3.48126	14.1968	14.4620	14.8141	14.6132	-296.49	864.048	812.562	733.033	1512.19	1517.00	-1.1086	-.25355	1420.96
3.620289	3.45974	3.47790	14.1968	14.4603	14.8238	14.6147	-296.37	864.048	811.946	731.083	1507.89	1512.04	-.48983	.365284	1421.11
3.636591	3.45762	3.47538	14.2614	14.4795	14.8350	14.6132	-296.49	864.048	813.948	731.391	1509.74	1513.90	-.48983	-.25355	1420.96
3.652802	3.45491	3.47482	14.3152	14.4883	14.8461	14.6132	-296.49	864.048	812.100	731.083	1509.74	1513.90	-.48983	-.25355	1420.96
3.669103	3.45249	3.47258	14.2990	14.4813	14.8573	14.6045	-296.37	863.587	811.176	730.570	1509.53	1513.70	-.48983	-.66611	1421.11
3.685330	3.45007	3.46669	14.2627	14.4743	14.8629	14.5986	-296.33	864.048	810.098	729.338	1507.69	1511.63	-.48983	.365284	1421.57
3.701543	3.44766	3.46277	14.2358	14.4883	14.8587	14.5913	-296.37	864.048	811.946	729.748	1506.46	1511.22	.335144	-.25355	1421.73
3.726407	3.45521	3.47061	14.1861	14.4988	14.8350	14.5855	-296.62	863.433	813.794	731.494	1510.97	1515.35	-.48983	.365284	1421.27
3.743821	3.46095	3.47510	14.1525	14.4900	14.8461	14.6030	-296.62	864.048	813.794	731.391	1510.35	1514.52	-.28358	-.25355	1421.27
3.760503	3.46457	3.47510	14.2022	14.4900	14.8629	14.6103	-296.62	864.048	814.564	732.315	1511.99	1516.17	-.48983	-.25355	1421.11
3.777819	3.46487	3.47566	14.2708	14.5040	14.8573	14.6118	-296.62	864.048	815.180	733.033	1513.01	1517.20	-.48983	-.25355	1421.11
3.794034	3.46457	3.47622	14.2574	14.5005	14.8475	14.6264	-296.62	863.587	814.410	732.212	1512.19	1516.17	-.48983	-.25355	1421.11
3.810332	3.47182	3.47594	14.2184	14.4900	14.8517	14.6454	-296.59	864.048	813.794	730.775	1508.10	1513.08	-.48983	-.25355	1421.11
3.826559	3.48269	3.47370	14.1995	14.4743	14.8573	14.6556	-296.62	864.048	814.410	730.980	1510.56	1515.35	-.28358	.365284	1420.96
3.842763	3.48390	3.47146	14.2439	14.4900	14.8573	14.6614	-296.72	864.048	815.026	731.186	1511.37	1516.38	-.48983	.365284	1421.11
3.859534	3.47212	3.47202	14.2614	14.5005	14.8461	14.6600	-296.59	864.048	815.796	731.494	1512.19	1516.38	-.48983	-.25355	1420.96
3.875770	3.46095	3.47594	14.2278	14.5005	14.8461	14.6556	-296.72	864.048	815.950	733.239	1513.01	1517.82	-.28358	-.45983	1421.11
3.891983	3.45370	3.48182	14.1968	14.4900	14.8475	14.6497	-296.88	864.048	814.410	733.444	1514.86	1519.47	-.48983	.365284	1421.27
3.908295	3.44766	3.48406	14.1753	14.4760	14.8461	14.6351	-296.88	864.048	813.332	732.315	1513.01	1517.20	-.48983	-.66611	1420.96
3.931864	3.44917	3.47930	14.2291	14.4830	14.8238	14.6089	-296.62	864.048	812.562	731.596	1512.19	1517.00	-.48983	-.45983	1421.57
3.950296	3.45128	3.47174	14.3165	14.4760	14.7792	14.5972	-296.49	864.048	810.714	730.672	1510.15	1514.52	-.28358	-.25355	1421.57
3.967517	3.44675	3.46613	14.3031	14.4603	14.7917	14.5972	-296.88	864.048	809.790	728.516	1507.28	1512.04	-.28358	-.66611	1420.96
3.983725	3.44071	3.46585	14.2883	14.4445	14.8071	14.6030	-296.88	864.048	810.252	729.338	1508.10	1512.04	-.48983	.365284	1420.96
4.000503	3.44102	3.46697	14.2318	14.4428	14.8238	14.6147	-296.78	864.048	810.252	730.980	1510.56	1515.35	-.28358	-.45983	1420.96

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WLO2-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PFV-1	
PARAMETER	WLO2-2		WH20P-2		WH20C-2				PGOT		F-B		FCALB 31941B			
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA	
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56	
4.016728	3.44102	3.46753	14.2062	14.4620	14.8350	14.6264	-296.72	864.048	810.098	730.159	1510.15	1514.52	-.28358	-.45983	1420.96	
4.032946	3.43951	3.46809	14.2130	14.4813	14.8364	14.6264	-296.62	864.048	810.868	730.570	1510.35	1514.52	-.28358	-.45983	1421.57	
4.049247	3.44162	3.47230	14.2331	14.4953	14.8406	14.6162	-296.46	864.048	811.484	731.494	1513.01	1516.38	-.48983	.365284	1421.73	
4.065465	3.44524	3.47622	14.2291	14.4883	14.8461	14.6162	-296.75	864.048	811.484	731.596	1511.58	1516.17	-.48983	-.25355	1421.73	
4.082150	3.44887	3.47958	14.2022	14.4620	14.8461	14.6278	-296.72	864.048	812.100	731.904	1513.01	1517.00	-.48983	-.87239	1421.57	
4.098476	3.45249	3.48266	14.1955	14.4603	14.8461	14.6381	-296.59	864.048	813.178	733.444	1515.27	1519.47	-.48983	-.66611	1421.73	
4.114684	3.45370	3.48154	14.2130	14.4760	14.8308	14.6322	-296.49	864.048	812.562	733.033	1515.27	1519.47	-.69607	-.25355	1422.18	
4.138686	3.45974	3.48154	14.2291	14.4918	14.8238	14.6205	-296.59	864.048	811.330	733.033	1515.27	1519.47	-.48983	-.66611	1421.73	
4.157313	3.45974	3.48070	14.2089	14.4725	14.8364	14.6191	-296.59	864.048	810.098	731.596	1512.81	1517.00	-.69607	-.25355	1422.18	
4.173849	3.45732	3.47818	14.2116	14.4533	14.8461	14.6205	-296.62	864.048	809.482	730.570	1510.97	1515.35	-.28358	-.25355	1421.57	
4.190153	3.45279	3.47706	14.1955	14.4445	14.8364	14.6176	-296.62	864.048	810.714	730.980	1510.97	1516.17	-.48983	.365284	1421.57	
4.206351	3.44766	3.47790	14.1753	14.4445	14.8350	14.6220	-296.75	864.048	810.406	731.391	1513.01	1517.00	-.48983	-.45983	1421.57	
4.223047	3.44041	3.47370	14.1847	14.4550	14.8350	14.6366	-296.59	864.048	809.636	730.262	1510.97	1516.17	-.48983	-.45983	1421.27	
4.239345	3.44313	3.47202	14.2009	14.4568	14.8238	14.6381	-296.62	864.048	810.714	731.802	1514.65	1518.65	-.48983	.365284	1421.57	
4.256568	3.45279	3.47370	14.1861	14.4673	14.8168	14.6395	-296.62	864.048	810.868	732.315	1514.65	1518.65	-.48983	.365284	1421.42	
4.273343	3.45642	3.47258	14.1794	14.4673	14.8182	14.6366	-296.62	864.048	810.098	731.391	1513.01	1517.20	-.48983	-.45983	1421.57	
4.289572	3.45491	3.46949	14.1968	14.4778	14.8182	14.6278	-296.72	864.048	810.098	730.262	1510.97	1516.17	-.48983	-.45983	1421.73	
4.305775	3.45309	3.46697	14.2143	14.4953	14.8029	14.6147	-296.84	864.048	810.714	730.570	1511.99	1516.38	-.48983	-.45983	1421.57	
4.315553	3.45370	3.46809	14.2009	14.4953	14.7917	14.6030	-296.62	864.048	809.636	730.159	1510.97	1515.55	.335144	-.45983	1421.73	
4.339008	3.44766	3.46809	14.1578	14.4743	14.8127	14.6030	-296.72	864.048	810.868	730.570	1511.37	1516.17	-.48983	.365284	1421.88	
4.358484	3.44524	3.47370	14.1699	14.4760	14.8182	14.5986	-296.62	864.048	810.098	730.980	1513.83	1517.82	-.28358	-.45983	1422.18	
4.374990	3.44071	3.47286	14.2170	14.4900	14.8182	14.5928	-296.59	864.048	809.636	730.159	1511.99	1516.38	-.48983	.365284	1422.18	
4.391211	3.43951	3.47033	14.2184	14.4900	14.8015	14.5870	-296.62	864.048	810.714	730.570	1512.19	1517.00	-.48983	-.45983	1422.18	
4.407901	3.44464	3.46921	14.2076	14.4953	14.7736	14.5797	-296.84	864.048	810.868	730.570	1512.81	1517.00	-.48983	.365284	1421.57	
4.424213	3.45249	3.46921	14.2278	14.5005	14.7568	14.5738	-296.75	864.048	811.946	731.391	1513.83	1517.82	-.28358	.365284	1421.57	
4.440421	3.45491	3.46753	14.2439	14.4883	14.7513	14.5797	-296.84	864.048	811.946	730.775	1511.99	1517.00	-.48983	-.25355	1421.11	
4.457119	3.45309	3.46697	14.2762	14.4725	14.7513	14.5855	-296.75	864.048	812.716	730.570	1512.19	1517.00	-.48983	-.25355	1421.27	
4.473425	3.45491	3.47033	14.3071	14.4638	14.7499	14.5811	-296.84	864.048	814.564	732.315	1515.47	1519.47	-.48983	-.04727	1421.57	
4.489636	3.45491	3.47594	14.3004	14.4673	14.7568	14.5855	-296.88	864.048	813.948	733.033	1516.09	1520.30	-.48983	.365284	1421.73	
4.505946	3.45068	3.47510	14.2412	14.4533	14.7680	14.5928	-296.84	864.048	812.562	731.391	1513.42	1517.82	-.28358	-.45983	1422.18	
4.522175	3.45128	3.47594	14.2439	14.4393	14.7694	14.5972	-297.00	864.048	812.870	731.083	1513.01	1517.82	-.28358	.365284	1422.18	
4.545674	3.45762	3.48098	14.2116	14.4603	14.7582	14.5913	-296.84	864.048	813.794	732.212	1515.27	1518.65	-.48983	.365284	1421.57	
4.563773	3.46336	3.48266	14.2062	14.4673	14.7694	14.5972	-296.78	864.048	813.794	732.212	1515.27	1519.47	-.48983	.365284	1421.57	
4.579890	3.45974	3.47622	14.1928	14.4603	14.7903	14.6089	-296.78	864.048	813.948	731.391	1514.24	1518.03	-.48983	-.45983	1421.57	
4.596192	3.45068	3.46809	14.1968	14.4708	14.8141	14.6205	-297.04	864.048	813.178	730.775	1513.83	1518.03	-.28358	-1.0787	1421.57	
4.613422	3.44524	3.46613	14.2305	14.4803	14.8238	14.6220	-297.00	864.048	814.410	730.980	1514.45	1518.65	-.48983	-.45983	1421.57	
4.629630	3.44645	3.46921	14.3192	14.5023	14.8182	14.6235	-296.88	864.048	813.332	731.391	1514.65	1519.47	-.48983	.365284	1421.57	
4.646409	3.45279	3.47258	14.3367	14.4803	14.8182	14.6264	-296.88	864.048	811.946	730.159	1512.81	1517.00	-.48983	-.45983	1421.57	
4.662622	3.46457	3.47342	14.2762	14.4655	14.8238	14.6322	-297.00	864.048	813.024	730.159	1513.01	1517.82	-.28358	-.45983	1421.57	
4.678881	3.47937	3.47482	14.2237	14.4533	14.8252	14.6439	-296.97	864.048	815.950	732.212	1515.47	1519.47	-.48983	-.25355	1421.57	
4.695141	3.48873	3.47622	14.2291	14.4603	14.8406	14.6570	-296.97	864.048	816.258	733.136	1516.29	1520.30	-.90231	.365284	1421.57	
4.711354	3.48631	3.47678	14.2331	14.4655	14.8461	14.6731	-296.84	864.048	815.642	733.033	1514.65	1519.47	-.48983	-.25355	1421.88	
4.728056	3.47786	3.47650	14.2453	14.4603	14.8364	14.6746	-296.97	864.048	813.486	731.802	1516.09	1519.47	-.48983	-.04727	1421.57	
4.752602	3.46246	3.47594	14.2977	14.4813	14.8308	14.6789	-297.13	864.048	811.330	730.159	1513.01	1517.82	-.28358	-.25355	1421.57	
4.771825	3.45007	3.47230	14.3515	14.4760	14.8350	14.6789	-297.10	864.048	810.098	729.748	1513.63	1517.82	-.28358	-.45983	1421.57	
4.788339	3.44162	3.46781	14.3905	14.4813	14.8350	14.6731	-296.88	864.048	809.636	729.338	1513.01	1517.00	-.48983	-.25355	1422.18	
4.804575	3.43920	3.46473	14.4389	14.4760	14.8294	14.6600	-296.88	864.048	811.330	730.159	1513.01	1517.82	-.28358	-.45983	1421.73	
4.820800	3.44524	3.46585	14.4752	14.4883	14.8071	14.6497	-296.75	864.048	810.406	731.391	1514.65	1519.47	-.48983	-.45983	1421.57	
4.837578	3.44766	3.46753	14.4819	14.4988	14.7806	14.6337	-297.10	864.048	810.098	730.159	1513.42	1517.82	-.28358	.365284	1421.57	

TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104 CALIBRATION PERFORMED 09-01-78 13:24:56 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WLO2-1	WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PFV-1	
PARAMETER	WLO2-2	WH20P-2		WH20C-2		DEG F		PGOT		POJ		F-B		FCALB 31941B	
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W		PSIA	PSIA	PSIA	LBS	LBS	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56
4.853809	3.44766	3.47033	14.5035	14.4953	14.7568	14.6264	-297.10	864.048	809.636	730.570	1514.45	1518.65	-.48983	-.25355	1421.11
4.870999	3.44675	3.47258	14.4873	14.5023	14.7457	14.6162	-297.13	864.048	808.866	729.851	1513.42	1517.82	-.48983	-.66611	1421.11
4.887301	3.43920	3.46837	14.3784	14.4883	14.7457	14.6132	-297.13	864.048	808.866	729.338	1512.19	1517.00	-.48983	-.45983	1421.11
4.903524	3.43256	3.46473	14.2466	14.4708	14.7568	14.6205	-297.10	864.048	808.250	729.338	1511.99	1516.17	-.48983	-.365284	1421.73
4.920213	3.42954	3.46249	14.1740	14.4603	14.7792	14.6264	-297.10	864.048	808.558	729.748	1513.01	1517.82	-.48983	-.66611	1422.18
4.936528	3.43316	3.46277	14.1632	14.4638	14.8015	14.6322	-296.88	864.048	810.868	730.980	1515.27	1519.47	-.48983	-.365284	1422.34
4.960913	3.44283	3.46837	14.1753	14.4743	14.8294	14.6366	-296.88	864.048	811.946	732.212	1516.29	1520.50	-.69607	-.66611	1422.18
4.979652	3.44283	3.47033	14.1538	14.4673	14.8461	14.6381	-297.07	864.048	811.484	732.315	1517.31	1521.12	-.48983	-.45983	1421.57
4.995722	3.44313	3.47482	14.1525	14.4550	14.8685	14.6439	-296.88	864.048	811.330	731.904	1516.90	1521.12	-.28358	-.25355	1421.57
5.011927	3.45249	3.47930	14.1646	14.4533	14.8810	14.6439	-298.02	865.278	810.714	732.315	1516.90	1521.12	-.28358	-.365284	1421.57
5.028700	3.45974	3.47790	14.1632	14.4603	14.8796	14.6395	-297.13	864.048	810.098	731.083	1514.65	1518.65	-.28358	-.25355	1421.11
5.044909	3.45732	3.47370	14.1309	14.4673	14.8629	14.6322	-296.88	864.048	810.098	730.672	1515.27	1519.47	-.48983	-.25355	1421.42
5.061131	3.45249	3.47146	14.1363	14.4603	14.8517	14.6322	-297.00	864.048	811.946	731.083	1516.09	1520.30	-.48983	-.45983	1421.11
5.077427	3.45249	3.47342	14.1269	14.4550	14.8364	14.6322	-296.88	864.048	812.562	731.802	1516.90	1521.12	-.28358	-.45983	1421.57
5.093649	3.45038	3.47202	14.1161	14.4620	14.8182	14.6264	-296.62	864.048	811.946	730.570	1514.65	1519.47	-.48983	-.45983	1421.57
5.110324	3.44524	3.46949	14.1377	14.4708	14.8141	14.6264	-296.84	864.048	810.406	730.056	1514.45	1519.47	-.48983	-.25355	1421.73
5.126636	3.44041	3.46837	14.1861	14.4743	14.8238	14.6205	-296.78	864.048	809.636	730.159	1515.47	1519.89	-.48983	-.25355	1422.18
5.142851	3.44162	3.46725	14.2076	14.4848	14.8182	14.6089	-297.04	864.048	810.098	729.851	1514.45	1518.65	-.48983	-.365284	1422.18
5.166717	3.45249	3.47061	14.2062	14.4883	14.7847	14.5870	-297.10	864.048	813.024	732.623	1519.36	1522.77	-.48983	-.365284	1421.57
5.185480	3.46095	3.47678	14.1847	14.4743	14.7596	14.5738	-297.10	864.048	813.024	733.855	1519.77	1523.60	-.48983	-.45983	1421.57
5.202139	3.46004	3.47818	14.1941	14.4603	14.7513	14.5665	-297.10	864.048	813.332	732.725	1518.54	1522.16	-.48983	-.365284	1421.57
5.218454	3.46004	3.47958	14.2493	14.4620	14.7457	14.5665	-296.84	864.048	812.562	733.033	1519.36	1523.19	-.48983	-.45983	1421.57
5.234663	3.46095	3.47958	14.2937	14.4620	14.7485	14.5578	-296.75	864.048	812.562	732.315	1519.36	1522.98	-.48983	-.365284	1421.73
5.251365	3.45974	3.47650	14.2829	14.4533	14.7582	14.5622	-297.00	864.048	812.562	732.315	1519.57	1523.60	-.48983	-.45983	1421.73
5.267674	3.45491	3.47202	14.2493	14.4410	14.7680	14.5695	-296.88	864.048	811.946	730.980	1516.09	1520.30	-.48983	-.43791	1421.73
5.283871	3.45128	3.46781	14.2130	14.4323	14.7680	14.5855	-297.00	864.048	812.716	730.570	1515.47	1519.68	-.48983	-.66611	1421.57
5.300184	3.45249	3.46613	14.2170	14.4410	14.7624	14.5972	-297.00	864.048	812.562	730.672	1517.52	1521.95	-.48983	-.45983	1421.57
5.316396	3.44887	3.46613	14.2345	14.4620	14.7694	14.6030	-297.00	864.048	812.562	730.980	1516.90	1521.12	-.48983	-.45983	1421.57
5.328607	3.44766	3.46725	14.2116	14.4743	14.7792	14.6030	-297.00	864.048	812.562	731.391	1517.52	1521.33	-.48983	-.365284	1421.11
5.345384	3.45007	3.46921	14.1968	14.4743	14.7861	14.6030	-296.62	864.048	813.178	731.494	1517.93	1521.95	-.48983	-.45983	1421.11
5.368802	3.45007	3.47174	14.1847	14.4743	14.7903	14.5928	-297.00	864.048	812.716	731.391	1517.11	1521.12	-.28358	-.365284	1421.57
5.387771	3.44645	3.46697	14.1767	14.4620	14.7959	14.5899	-297.13	864.048	811.946	729.748	1516.09	1520.30	-.48983	-.365284	1422.18
5.404084	3.44524	3.46249	14.2170	14.4708	14.8015	14.5899	-297.13	864.048	810.714	729.030	1516.09	1519.68	-.48983	-.365284	1422.18
5.420303	3.44283	3.46137	14.2076	14.4743	14.8015	14.5972	-297.35	864.048	811.330	728.927	1515.47	1519.68	-.48983	-.45983	1421.57
5.436982	3.44404	3.46277	14.1753	14.4620	14.8015	14.6045	-297.00	864.048	811.946	729.748	1515.27	1519.68	-.48983	-.365284	1421.57
5.453298	3.44645	3.46697	14.1888	14.4603	14.8015	14.6089	-296.97	864.048	812.562	730.570	1516.90	1521.12	-.28358	-.45983	1421.57
5.470509	3.44917	3.46809	14.1955	14.4638	14.8071	14.6103	-297.10	864.048	811.946	730.570	1516.29	1520.50	-.48983	-.10787	1421.57
5.487291	3.45279	3.46473	14.2210	14.4603	14.8015	14.6162	-297.13	864.048	810.098	728.927	1514.65	1519.47	-.48983	-.45983	1421.57
5.503529	3.45853	3.45857	14.2385	14.4673	14.7861	14.6089	-297.13	864.048	810.098	728.106	1512.19	1517.00	-.48983	-.365284	1421.11
5.519742	3.46215	3.45465	14.2399	14.4725	14.7792	14.5972	-297.13	864.048	810.868	728.106	1512.81	1517.00	-.69607	-.45983	1420.96
5.536519	3.45853	3.45353	14.2224	14.4725	14.7847	14.5913	-297.35	864.048	812.716	729.030	1514.45	1518.03	-.48983	-.25355	1421.11
5.553745	3.45309	3.45745	14.1861	14.4673	14.7917	14.5913	-297.13	864.048	813.794	731.083	1517.11	1521.33	-.48983	-.25355	1421.11
5.576964	3.44645	3.45885	14.1807	14.4673	14.8127	14.5986	-297.10	864.048	813.948	730.570	1516.09	1519.47	-.69607	-.365284	1421.57
5.595307	3.44887	3.46389	14.2062	14.4813	14.8182	14.6045	-297.00	864.048	815.180	732.315	1520.39	1524.43	-.28358	-.365284	1422.18
5.611520	3.44826	3.46921	14.2331	14.4813	14.7959	14.6030	-297.13	864.048	813.024	731.494	1519.36	1523.60	-.48983	-.365284	1422.18
5.628299	3.43920	3.46697	14.1928	14.4690	14.7694	14.5972	-297.13	864.048	811.330	729.748	1516.29	1521.12	-.28358	-.365284	1421.73
5.644522	3.43679	3.46389	14.1309	14.4533	14.7624	14.5986	-297.10	864.048	811.946	730.159	1516.70	1521.12	-.48983	-.45983	1421.57
5.661744	3.44524	3.46613	14.0987	14.4410	14.7792	14.6089	-297.13	864.048	812.562	730.570	1517.93	1521.95	-.48983	-.45983	1421.57
5.678519	3.45249	3.46949	14.1309	14.4323	14.7959	14.6220	-297.39	864.048	813.794	731.186	1517.93	1522.77	-.48983	-.45983	1421.57

205



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WLO2-1		WH20P-1		WH20C-1		TOFM		PQV		F-A		FCALA 31941A		PFV-1	
PARAMETER	WLO2-2		WH20P-2		WH20C-2				PGOT		F-B		FCALB 31941B			
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	POJ	LBS	LBS	LBS	LBS	PSIA	
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56	
5.694746	3.45551	3.47174	14.1753	14.4445	14.8015	14.6278	-297.13	864.048	814.410	733.033	1521.21	1525.25	-.48983	.365284	1421.57	
5.710892	3.45249	3.47482	14.2009	14.4690	14.7903	14.6264	-297.07	864.048	813.332	732.725	1521.82	1525.46	-.28358	-.45983	1421.57	
5.727188	3.44524	3.47370	14.2009	14.4813	14.7792	14.6162	-297.04	864.048	810.868	731.083	1519.36	1523.60	-.48983	-.25355	1422.18	
5.743387	3.43347	3.46809	14.2116	14.4760	14.7680	14.6030	-296.88	864.048	809.482	729.132	1514.65	1519.47	-.48983	-.25355	1422.18	
5.760090	3.42833	3.46053	14.2331	14.4690	14.7513	14.5884	-297.04	864.048	810.098	728.927	1513.83	1518.03	-.28358	.365284	1422.18	
5.783616	3.43679	3.46193	14.2184	14.4533	14.7289	14.5665	-296.97	864.048	813.024	731.802	1519.36	1522.98	-.48983	.365284	1421.73	
5.802438	3.43437	3.45241	14.1941	14.4533	14.7359	14.5622	-297.23	864.048	837.202	709.216	1488.03	1491.82	-.28358	.365284	1422.18	
5.818913	3.24593	3.23084	14.1968	14.4603	14.7568	14.5665	-297.35	864.048	990.430	545.370	1022.32	1036.64	-.28358	-.45983	1436.86	
5.835144	2.59878	2.48883	14.2278	14.4533	14.7624	14.5753	-297.13	864.202	861.225	336.763	558.660	583.524	-.48983	-.45983	1479.81	
5.851360	1.84835	1.66110	14.2453	14.4533	14.7624	14.5855	-297.35	864.663	917.897	201.662	380.692	400.502	.335144	-.45983	1505.34	
5.868116	1.32290	1.05606	14.2439	14.4533	14.7792	14.5913	-297.26	865.278	862.611	149.100	333.998	343.346	-.48983	-.45983	1511.61	
5.884339	1.08856	.774547	14.2116	14.4533	14.7792	14.5986	-297.13	865.431	857.683	139.655	311.266	313.634	.335144	-.25355	1509.62	
5.901026	.995552	.710682	14.1767	14.4410	14.7680	14.5928	-297.13	865.585	891.409	140.066	256.380	257.510	-.28358	.365284	1507.79	
5.917341	.949650	.696116	14.1242	14.4480	14.7513	14.5884	-297.10	866.507	820.108	133.906	190.231	192.926	-.28358	-.66611	1506.57	
5.933565	.942403	.721887	14.1202	14.4550	14.7568	14.5797	-297.13	866.507	913.893	122.819	145.790	149.389	-.28358	-.25355	1505.80	
5.950269	.946027	.799197	14.1578	14.4550	14.7527	14.5578	-297.13	866.507	810.406	110.705	125.105	128.136	-.28358	.365284	1505.95	
5.966570	.916432	.909001	14.2170	14.4603	14.7233	14.5227	-297.00	866.661	914.201	98.6935	119.371	119.882	-.48983	.365284	1505.50	
5.991162	.889254	.916003	14.2130	14.4393	14.6843	14.4819	-297.10	867.122	810.252	81.0359	110.360	111.423	.335144	.365284	1505.34	
6.009205	.896803	.943734	14.1471	14.3973	14.6675	14.4643	-297.61	867.122	911.583	69.0246	109.541	109.772	.335144	-1.0787	1505.34	
6.025330	.902541	.886312	14.1067	14.3641	14.6564	14.4527	-297.10	867.737	827.500	61.2224	106.469	106.677	-.48983	-.45983	1505.34	
6.042014	.914620	.783511	14.1121	14.3606	14.6619	14.4571	-297.04	867.737	900.033	54.6521	106.469	106.677	-.48983	-.45983	1505.04	
6.058326	.941195	.713203	14.1108	14.3833	14.6619	14.4629	-297.26	867.737	865.691	49.0058	106.264	106.470	-.48983	-.45983	1504.88	
6.074521	.937571	.695276	14.0987	14.4078	14.6452	14.4512	-297.00	867.737	847.057	46.0286	106.264	106.470	-.48983	-.45983	1504.73	
6.092214	.915828	.709002	14.1094	14.4200	14.6229	14.4337	-296.62	867.737	896.337	44.7967	105.445	106.470	-.48983	-.45983	1504.73	
6.108524	.872343	.715444	14.1161	14.4218	14.5950	14.4103	-297.13	867.737	821.186	44.7967	105.445	105.645	-.28358	-.45983	1504.27	
6.124720	.847278	.751018	14.1054	14.4061	14.5894	14.4016	-297.00	867.891	908.657	44.8993	105.445	106.470	-.48983	-.45983	1504.27	
6.141023	.791411	.760262	14.0825	14.3851	14.5894	14.4045	-297.00	868.352	844.131	45.2073	103.602	104.820	-.28358	.365284	1504.27	
6.157256	.693568	.735332	14.0933	14.3868	14.5782	14.4060	-297.13	867.891	876.009	45.2073	106.264	106.470	-.48983	-.45983	1504.12	
6.173452	.624716	.684072	14.1309	14.4078	14.5671	14.4060	-297.13	868.352	882.785	45.2073	105.650	106.470	-.48983	-.45983	1504.12	
6.199205	.618676	.608442	14.1323	14.3973	14.5503	14.4103	-297.04	868.352	889.715	45.6180	104.830	105.026	-.28358	-.25355	1504.12	
6.215491	.664578	.587433	14.1309	14.3728	14.5559	14.4162	-297.13	868.966	872.159	45.6180	104.830	105.232	-.48983	.365284	1504.12	
6.232195	.719237	.616565	14.1108	14.3641	14.5573	14.4220	-297.13	868.966	845.825	45.6180	104.830	105.026	-.28358	-.25355	1504.12	
6.248508	.761515	.677069	14.1161	14.3693	14.5503	14.4191	-297.10	868.966	899.109	45.7206	105.445	105.645	-.28358	.365284	1503.66	
6.264720	.764836	.631971	14.1108	14.3781	14.5447	14.4162	-296.88	868.966	830.426	45.7206	104.626	104.820	-.28358	-.25355	1503.51	
6.281027	.780540	.598638	14.0664	14.3711	14.5559	14.4176	-297.10	868.966	898.801	45.8233	104.626	105.026	-.28358	.365284	1503.51	
6.298249	.749133	.577349	14.0476	14.3623	14.5726	14.4220	-297.10	868.966	864.613	45.7206	104.626	104.820	-.28358	-.45983	1503.51	
5.314463	.699608	.552980	14.0624	14.3763	14.5894	14.4220	-297.13	868.966	853.217	45.7206	105.650	106.470	-.48983	-.45983	1503.51	
6.325229	.693568	.568666	14.1229	14.3903	14.6005	14.4220	-297.10	868.966	897.107	45.7206	104.626	104.820	-.28358	.365284	1503.51	
6.341448	.724975	.606761	14.1430	14.4043	14.6131	14.4118	-297.13	868.966	831.042	46.0286	105.445	105.645	-.28358	.365284	1503.51	
6.358143	.744302	.652979	14.1525	14.3973	14.6243	14.4103	-297.00	868.966	902.497	46.0286	103.806	103.994	-1.1086	-.45983	1503.05	
6.374451	.740678	.623568	14.1955	14.4043	14.6229	14.4030	-296.88	868.966	860.763	46.0286	103.397	103.375	-.48983	-.45983	1503.05	
6.398821	.664578	.593036	14.1807	14.3886	14.6131	14.3928	-297.10	868.966	901.727	46.0286	104.011	103.994	-.48983	-.45983	1502.90	
6.416914	.613845	.583232	14.1161	14.3641	14.6131	14.3928	-297.13	868.966	852.293	46.0286	103.806	103.994	-.48983	.365284	1503.05	
6.433159	.609013	.557462	14.1309	14.3553	14.6019	14.3943	-296.88	869.120	874.161	46.4392	103.806	103.994	-.48983	-.45983	1502.90	
6.449384	.616260	.530291	14.1538	14.3763	14.5838	14.3987	-297.10	869.120	888.945	46.4392	103.806	104.201	-.48983	.365284	1502.90	
6.466164	.552240	.480151	14.1256	14.3833	14.5782	14.4030	-297.13	868.966	837.664	46.4392	103.806	104.820	-.28358	-.45983	1502.90	
6.482392	.516304	.526089	14.1202	14.3606	14.5782	14.4060	-297.10	869.120	903.883	46.4392	104.626	105.026	.335144	-.25355	1502.90	
6.498596	.521136	.543736	14.1686	14.3833	14.5796	14.4001	-297.00	869.120	852.447	46.4392	103.806	104.820	-.28358	-.45983	1502.90	
6.515378	.492145	.560823	14.1861	14.3973	14.5782	14.3841	-297.04	869.120	879.859	46.4392	103.806	103.994	-.48983	.365284	1502.90	

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PFV-1							
PARAMETER	WLO2-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B								
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	PSIA	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56
6.531602	.459229	.584072	14.1430	14.4043	14.5685	14.3695	-296.88	869.274	886.019	46.4392	103.806	104.820	-.28358	-.45983	1502.90
6.548888	.447150	.573988	14.1081	14.4043	14.5573	14.3476	-296.88	869.274	840.436	46.4392	104.011	104.820	-.28358	.365284	1502.90
6.565113	.483388	.545697	14.0946	14.3973	14.5447	14.3403	-297.10	869.427	903.113	46.4392	104.626	103.994	-.48983	.365284	1502.90
6.581322	.520834	.497798	14.0839	14.3851	14.5336	14.3403	-297.13	869.274	853.987	46.4392	102.987	103.582	-.90231	.365284	1502.90
6.605391	.495467	.512924	14.1108	14.3868	14.5224	14.3344	-297.13	869.274	901.265	46.4392	103.806	103.994	-.48983	-.25355	1502.90
6.623878	.445942	.556061	14.1578	14.3903	14.5057	14.3242	-296.97	868.966	852.755	46.4392	102.987	103.994	-.48983	-.45983	1502.90
6.640095	.378297	.554660	14.1309	14.3798	14.5057	14.3301	-297.04	868.966	881.707	46.4392	102.373	103.169	-.48983	-.25355	1502.90
6.656390	.368634	.511243	14.1309	14.3606	14.5252	14.3403	-296.88	868.966	884.787	46.4392	102.168	102.756	-.48983	-.45983	1502.90
6.672608	.404872	.484633	14.1471	14.3553	14.5559	14.3592	-297.00	869.274	846.595	46.4392	102.782	103.375	-.48983	.365284	1502.29
6.689286	.473724	.542616	14.1525	14.3641	14.5796	14.3928	-297.10	868.966	901.265	46.4392	102.987	103.375	-.48983	.365284	1502.29
6.705589	.517210	.566145	14.1646	14.3781	14.5894	14.4045	-297.13	868.966	852.755	46.5419	103.806	103.994	-.48983	-.25355	1502.29
6.721800	.516002	.561663	14.1807	14.3921	14.5671	14.4016	-297.00	868.966	882.631	46.5419	103.192	103.994	-.48983	-.45983	1502.90
6.738112	.471912	.511243	14.1632	14.4043	14.5461	14.3870	-297.04	869.274	882.477	46.5419	103.806	103.994	-.48983	-.25355	1502.29
6.754337	.425407	.442896	14.1309	14.3921	14.5503	14.3709	-297.10	869.427	848.289	46.5419	102.987	103.375	-.48983	-.45983	1502.29
6.770535	.397624	.417126	14.1000	14.3763	14.5573	14.3578	-296.88	869.120	900.033	46.4392	102.373	103.169	-.48983	-.45983	1502.44
6.787316	.371050	.419647	14.0771	14.3641	14.5671	14.3519	-296.88	869.120	851.369	46.4392	102.782	103.169	-.48983	-.25355	1502.29
6.810794	.350817	.510403	14.0677	14.3553	14.5671	14.3476	-296.75	869.581	898.493	46.4392	102.373	103.169	-.28358	-.45983	1502.44
6.830239	.394001	.557181	14.0771	14.3693	14.5559	14.3563	-296.84	869.120	847.057	46.4392	102.168	103.169	-.48983	-.45983	1502.90
6.847015	.449565	.560543	14.0892	14.3658	14.5392	14.3695	-296.84	869.120	890.793	46.5419	102.987	103.169	-.48983	-.45983	1502.44
6.863228	.464061	.502280	14.1148	14.3641	14.5392	14.3826	-296.84	869.120	871.697	46.5419	103.806	103.994	-.48983	-.45983	1502.29
6.880924	.398832	.433933	14.0946	14.3693	14.5517	14.3928	-296.84	869.120	858.761	46.4392	101.758	102.344	-.28358	.365284	1502.29
6.897219	.373466	.417406	14.0933	14.3781	14.5698	14.3928	-296.88	869.120	894.489	46.5419	102.987	103.169	-.48983	-.45983	1502.29
6.913426	.367426	.408162	14.1000	14.3886	14.5894	14.3928	-296.88	869.274	846.595	46.4392	101.554	102.344	-.28358	.365284	1502.29
6.930116	.340851	.388274	14.0946	14.3851	14.6117	14.3943	-296.75	869.120	890.331	46.4392	102.168	103.169	-.48983	-.45983	1502.29
6.946421	.302500	.410683	14.0879	14.3886	14.6229	14.3987	-296.62	869.120	870.003	46.4392	102.168	103.169	-.48983	-.25355	1502.29
6.962621	.297366	.457462	14.0892	14.4043	14.6117	14.3884	-296.75	869.120	857.683	46.4392	102.987	103.169	-.48983	-.45983	1502.29
6.978921	.342059	.486593	14.0906	14.4200	14.5894	14.3797	-296.62	869.120	894.027	46.4392	102.782	103.375	-.48983	.365284	1502.29
6.995142	.363802	.450739	14.1094	14.4253	14.5782	14.3709	-296.78	869.120	848.443	46.4392	102.373	103.169	-.48983	-.25355	1502.29
7.019152	.332396	.415165	14.1632	14.4078	14.5447	14.3461	-296.75	869.120	895.721	46.4392	102.987	103.375	-.48983	.365284	1502.29
7.037651	.263544	.404801	14.1309	14.3973	14.5126	14.3315	-296.62	869.581	847.673	46.5419	102.168	103.169	-.48983	-.25355	1502.29
7.053868	.225192	.388835	14.1148	14.3921	14.5057	14.3111	-296.62	869.581	889.715	46.5419	101.963	102.550	-.28358	.365284	1502.29
7.070544	.233345	.410403	14.0946	14.3868	14.5015	14.2994	-296.75	869.274	869.387	46.5419	101.963	102.550	.335144	-.45983	1502.29
7.086856	.271093	.419927	14.1215	14.3763	14.5001	14.2936	-296.81	869.581	859.993	46.4392	101.554	102.344	-.28358	-.87239	1502.29
7.103072	.331490	.361384	14.1686	14.3763	14.4833	14.2863	-296.81	869.120	893.411	46.4392	101.963	102.550	.335144	.365284	1502.29
7.119764	.363802	.302841	14.1753	14.3763	14.4889	14.2906	-296.75	869.120	850.291	46.4392	101.349	102.344	-.28358	.365284	1501.98
7.136064	.359272	.335744	14.1632	14.3623	14.5126	14.3067	-296.97	869.427	887.097	46.4392	101.554	102.344	-.07734	-.25355	1502.29
7.152284	.342361	.372308	14.1646	14.3553	14.5447	14.3242	-296.75	869.581	874.315	46.4392	101.349	102.344	-.28358	-.45983	1502.29
7.169048	.249048	.310964	14.1471	14.3501	14.5573	14.3476	-296.72	869.581	859.531	46.5419	101.349	101.518	.335144	-.25355	1502.29
7.185272	.206771	.269227	14.1215	14.3483	14.5671	14.3695	-296.62	869.581	893.873	46.5419	101.349	102.344	.335144	.365284	1502.29
7.201486	.200731	.281552	14.1067	14.3501	14.5671	14.3870	-296.62	869.581	854.603	46.5419	101.349	102.137	-.28358	.365284	1502.29
7.225011	.198315	.349899	14.0987	14.3658	14.5671	14.3987	-296.62	869.581	894.181	46.5419	101.349	101.725	.335144	.365284	1502.29
7.243705	.242103	.381552	14.0812	14.3693	14.5671	14.4060	-296.59	869.581	855.065	46.5419	100.734	101.518	.335144	-.45983	1502.29
7.260231	.296158	.395837	14.1094	14.3693	14.5796	14.4103	-296.62	869.581	884.633	46.5419	101.349	101.725	.335144	-.45983	1502.29
7.276546	.278643	.409283	14.1309	14.3763	14.5908	14.3987	-296.75	869.581	878.473	46.5419	101.349	101.725	.335144	.365284	1502.29
7.292758	.181404	.402280	14.1161	14.3693	14.5894	14.3870	-296.78	869.581	857.683	46.5419	101.554	102.344	-.28358	.365284	1502.29
7.309065	.116176	.372308	14.0987	14.3623	14.5838	14.3797	-296.62	869.581	893.873	46.5419	101.349	101.725	.335144	.365284	1502.29
7.322274	.099567	.289395	14.1256	14.3483	14.5894	14.3782	-296.62	869.581	860.763	46.5419	101.349	101.518	-.07734	.365284	1502.29
7.339045	.138220	.254942	14.1686	14.3326	14.6019	14.3870	-296.78	869.581	876.933	46.4392	100.530	100.899	.335144	.365284	1502.29
7.357250	.219152	.276510	14.1538	14.3203	14.6117	14.3928	-296.59	869.581	884.633	46.5419	100.734	101.518	.335144	-.25355	1502.29

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WLO2-1		WH20P-1		WH20C-1		TOFM		POV		F-A		FCALA 31941A		PFV-1	
PARAMETER	WLO2-2		WH20P-2		WH20C-2				PGOT		F-B		FCALB 31941B			
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA	POJ	LBS	LBS	LBS	LBS	PSIA	
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56	
7.373485	.223682	.244578	14.1847	14.3273	14.6131	14.4045	-296.84	869.581	856.297	46.5419	100.530	100.693	-.48983	-.45983	1502.29	
7.390175	.214018	.229172	14.2775	14.3273	14.6131	14.4220	-296.59	869.427	893.257	46.5419	101.554	102.344	-.28358	.365284	1502.29	
7.406475	.187444	.200040	14.2654	14.3361	14.6005	14.4337	-296.62	869.581	866.769	46.4392	101.349	101.725	.335144	.365284	1502.29	
7.429945	.111344	.237855	14.1847	14.3658	14.5782	14.4337	-296.62	869.581	890.177	46.4392	101.758	102.344	-.28358	.365284	1501.98	
7.448141	.133087	.267827	14.1646	14.3833	14.5782	14.4337	-296.62	869.581	868.001	46.4392	100.734	101.518	.335144	.365284	1501.83	
7.464275	.145166	.237855	14.1484	14.3903	14.5587	14.4103	-296.62	869.581	871.235	46.5419	100.734	101.725	-.28358	.365284	1502.29	
7.480487	.178988	.223569	14.1108	14.3903	14.5447	14.3928	-296.53	869.735	890.177	46.5419	100.734	101.518	.335144	.365284	1502.29	
7.497256	.150602	.198639	14.0771	14.3868	14.5503	14.3797	-296.59	869.581	857.529	46.4392	100.734	101.518	-.28358	.365284	1502.29	
7.513474	.123725	.234774	14.0610	14.3781	14.5671	14.3797	-296.62	869.581	890.177	46.4392	100.734	101.518	.335144	-.45983	1502.29	
7.530162	.154830	.271468	14.0664	14.3641	14.5671	14.3768	-296.59	869.581	873.083	46.5419	100.734	101.518	-.48983	.365284	1502.13	
7.546477	.191068	.244858	14.0664	14.3693	14.5559	14.3738	-296.62	869.581	869.233	46.5419	100.530	101.518	-.28358	-.25355	1502.29	
7.562687	.230929	.263625	14.0449	14.3606	14.5503	14.3709	-296.59	869.581	892.025	46.5419	100.530	100.693	-.48983	.365284	1502.29	
7.579370	.222474	.244858	14.0516	14.3553	14.5447	14.3695	-296.59	869.581	858.761	46.6446	100.530	101.518	.335144	-.45983	1502.29	
7.595687	.174458	.230012	14.0771	14.3693	14.5503	14.3651	-296.59	869.581	887.097	46.5419	100.530	100.693	-.48983	-.45983	1502.29	
7.611906	.101680	.248219	14.0933	14.3851	14.5559	14.3636	-296.59	869.581	876.009	46.5419	100.734	101.518	-.28358	.365284	1502.29	
7.636731	.048531	.231973	14.1471	14.3921	14.5671	14.3592	-296.62	869.581	884.633	46.4392	100.530	100.899	-.48983	.365284	1501.98	
7.653465	.106512	.254942	14.1498	14.3833	14.5573	14.3578	-296.62	869.581	876.009	46.4392	101.349	101.518	-.28358	.365284	1502.29	
7.670145	.112552	.231132	14.1363	14.3763	14.5671	14.3607	-296.75	869.581	862.457	46.4392	100.734	101.518	-.28358	-.25355	1501.98	
7.686457	.094433	.255782	14.1309	14.3711	14.5894	14.3709	-296.62	869.581	890.793	46.5419	100.530	100.693	-.48983	-.45983	1502.29	
7.702687	.119799	.306202	14.1363	14.3641	14.6061	14.3870	-296.62	869.581	859.377	46.6446	99.9153	100.693	-.48983	.365284	1501.83	
7.719361	.145166	.364745	14.1444	14.3571	14.6173	14.4016	-296.72	869.581	880.937	46.5419	100.734	101.518	.335144	-.25355	1501.98	
7.736676	.186236	.376790	14.1740	14.3553	14.6117	14.4103	-296.78	869.581	878.473	46.5419	101.349	101.518	-.48983	.365284	1501.83	
7.752892	.170533	.296678	14.1794	14.3571	14.6019	14.4220	-296.75	869.581	858.761	46.5419	100.530	100.693	-.48983	.365284	1502.29	
7.769188	.178988	.281552	14.2009	14.3553	14.6117	14.4293	-296.59	869.735	890.177	46.5419	99.7104	100.074	-.28358	-.45983	1502.29	
7.785418	.187444	.301720	14.1807	14.3431	14.6229	14.4395	-296.59	869.735	862.149	46.5419	99.0961	99.8676	-.28358	-.45983	1502.29	
7.801632	.198919	.289675	14.1578	14.3361	14.6229	14.4395	-296.59	869.581	874.161	46.5419	99.9153	100.074	-.28358	-.45983	1502.29	
7.818412	.226098	.198639	14.1538	14.3431	14.6131	14.4395	-296.62	869.735	882.323	46.5419	101.144	101.518	-.28358	.365284	1502.29	
7.842033	.215226	.073150	14.1578	14.3483	14.5866	14.4512	-296.59	869.581	869.849	46.4392	100.530	100.693	-.28358	-.25355	1502.29	
7.860873	.218850	.130572	14.1847	14.3483	14.5559	14.4162	-296.53	870.196	881.707	46.6446	100.530	101.518	-.28358	.365284	1502.29	
7.877121	.170533	.238975	14.1915	14.3483	14.5350	14.4103	-296.49	869.735	856.913	46.8499	100.530	100.693	-.48983	-.25355	1502.44	
7.893332	.111344	.319647	14.1740	14.3501	14.5350	14.3987	-296.59	869.735	889.715	46.8499	100.530	100.899	-.28358	.365284	1502.44	
7.910011	.089601	.272029	14.1525	14.3571	14.5447	14.3870	-296.37	869.581	864.305	46.8499	99.0961	99.8676	-.28358	-.25355	1502.29	
7.926312	.061819	.172869	14.1525	14.3553	14.5447	14.3826	-296.59	869.581	871.081	46.8499	99.9153	100.693	-.48983	.365284	1502.29	
7.942521	.029204	.169788	14.1592	14.3501	14.5447	14.3768	-296.49	870.196	886.481	46.5419	100.530	100.693	-.48983	-.45983	1502.29	
7.959297	.005046	.242617	14.1525	14.3571	14.5336	14.3651	-296.37	870.196	855.835	46.5419	100.734	101.518	.335144	-.25355	1502.29	
7.975523	.022259	.321608	14.1578	14.3641	14.5336	14.3534	-296.59	869.581	888.329	46.6446	100.530	100.693	-.48983	-.25355	1502.29	
7.991728	.060611	.296118	14.1108	14.3711	14.5224	14.3461	-296.49	869.581	870.311	46.8499	100.734	101.518	.335144	.365284	1502.44	
8.008505	.117384	.260264	14.0785	14.3763	14.5168	14.3461	-296.37	870.196	866.153	46.8499	99.9153	100.280	-.48983	2.01551	1502.44	
8.024737	.213414	.292757	14.0892	14.3763	14.5238	14.3403	-296.49	870.196	890.177	46.5419	99.9153	100.074	-.48983	.365284	1502.29	
8.049256	.226400	.247099	14.0771	14.3641	14.5447	14.3461	-296.46	869.581	860.147	46.8499	99.7104	99.8676	-.48983	-.25355	1502.29	
8.067287	.211602	.253821	14.0529	14.3693	14.5447	14.3461	-296.37	870.196	890.947	46.8499	99.0961	99.8676	-.28358	-.45983	1502.90	
8.083498	.217944	.238975	14.0892	14.3868	14.5350	14.3403	-296.62	870.196	858.145	46.5419	100.530	100.074	-.48983	-.45983	1502.90	
8.100272	.232741	.219088	14.1000	14.3851	14.5294	14.3403	-296.62	869.581	883.555	46.5419	99.9153	100.693	-.48983	-.25355	1502.29	
8.116495	.227306	.242617	14.0839	14.3763	14.5392	14.3549	-296.53	869.581	878.473	46.6446	99.7104	100.693	-.48983	-.45983	1502.29	
8.132710	.244217	.230012	14.0839	14.3606	14.5671	14.3753	-296.49	869.581	858.761	46.8499	99.9153	100.074	-.48983	.365284	1502.29	
8.149486	.304915	.226651	14.1054	14.3571	14.5950	14.3928	-296.33	869.581	892.641	46.5419	100.530	100.693	-.48983	.365284	1502.29	
8.165694	.303405	.218807	14.1336	14.3623	14.5908	14.3987	-296.59	869.735	861.995	46.4392	100.530	100.693	-.48983	-.25355	1502.29	
8.181914	.240593	.211244	14.1215	14.3763	14.5726	14.3928	-296.62	869.581	875.547	46.4392	100.530	100.693	-.48983	.365284	1502.29	
8.198209	.211602	.229172	14.1108	14.3763	14.5573	14.3797	-296.53	869.735	886.481	46.5419	99.9153	100.693	-.48983	-.25355	1502.29	



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104 CALIBRATION PERFORMED 09-01-78 13:24:56 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PFV-1							
PARAMETER	WL02-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B								
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56
8.214426	.193483	.227211	14.1417	14.3501	14.5671	14.3782	-296.37	869.581	856.297	46.8499	99.7104	99.8676	-.28358	.365284	1502.29
8.231121	.201939	.229172	14.1686	14.3431	14.5838	14.3797	-296.24	869.581	891.409	46.8499	99.3009	99.8676	-.28358	.365284	1502.29
8.254602	.216434	.231412	14.1699	14.3483	14.6117	14.3870	-296.37	869.581	856.913	46.8499	100.734	100.899	-.48983	-.25355	1502.29
8.273715	.207979	.226651	14.1861	14.3571	14.6340	14.3987	-296.49	869.581	892.025	46.9525	100.530	100.899	-.28358	.365284	1502.90
8.290322	.190617	.245418	14.2022	14.3763	14.6243	14.3943	-296.46	870.196	870.311	47.2605	101.349	101.518	.335144	-.45903	1502.44
8.306553	.137918	.247099	14.1632	14.3781	14.6005	14.3826	-296.37	870.196	868.001	46.7472	99.0961	99.8676	-.48983	.365284	1502.90
8.318762	.065442	.249620	14.0960	14.3623	14.5894	14.3797	-296.33	869.581	892.795	46.8499	98.6865	99.2486	.335144	-.45983	1502.44
8.335540	.041284	.257463	14.0449	14.3413	14.5908	14.3870	-296.37	869.581	857.683	46.8499	99.0961	99.8676	-.48983	.365284	1502.29
8.351765	.106512	.238135	14.0355	14.3483	14.6005	14.3928	-296.33	869.581	886.019	46.8499	99.5057	99.8676	-.48983	.365284	1502.90
8.367960	.168117	.225810	14.0825	14.3693	14.5838	14.3870	-296.24	869.581	880.475	46.8499	99.0961	99.8676	-.28358	-.45903	1502.44
8.384271	.140334	.205082	14.1040	14.3833	14.5559	14.3695	-296.11	869.581	859.377	46.8499	99.0961	99.8676	-.28358	.365284	1502.29
8.400492	.105304	.206202	14.0946	14.3763	14.5503	14.3709	-296.24	869.581	895.259	46.7472	99.0721	99.0422	.335144	-.25355	1502.90
8.417188	.110136	.256062	14.0946	14.3553	14.5685	14.3753	-296.27	869.581	864.459	46.6446	99.0961	99.8676	-.28358	-.45903	1502.90
8.433487	.138220	.313205	14.1457	14.3483	14.5894	14.3695	-296.11	869.735	875.393	46.6446	99.7104	100.280	-.48983	.365284	1502.90
8.457098	.205563	.285194	14.1323	14.3623	14.6005	14.3578	-296.08	870.196	872.467	46.8499	99.7104	100.074	-.48983	.365284	1502.90
8.475735	.205563	.249620	14.0825	14.3693	14.5838	14.3476	-296.33	870.196	873.699	46.8499	99.0961	99.8676	-.28358	.365284	1502.90
8.491796	.216434	.303681	14.0301	14.3571	14.5782	14.3519	-296.37	870.196	892.179	46.8499	99.0961	99.8676	-.28358	-.25355	1502.44
8.508019	.215226	.363345	14.0180	14.3501	14.5894	14.3695	-296.21	870.196	858.145	46.8499	98.8913	99.0422	-.28358	.365284	1502.90
8.524321	.216434	.365866	14.0355	14.3763	14.5950	14.3768	-296.21	869.735	888.945	46.8499	100.120	100.074	-.28358	.365284	1502.44
8.540604	.224890	.315166	14.0946	14.3921	14.6061	14.3797	-296.08	870.196	879.859	46.8499	99.0961	99.2486	.335144	-.45983	1502.90
8.557301	.215226	.254942	14.1014	14.3921	14.6117	14.3768	-296.27	870.196	864.305	46.8499	98.2769	98.6296	-.28358	-.45983	1502.90
8.573608	.244217	.240936	14.1108	14.3763	14.6061	14.3782	-296.27	870.196	896.491	46.9525	98.2769	98.4232	.335144	-.45983	1502.44
8.589825	.252672	.240936	14.1054	14.3571	14.6033	14.3826	-296.21	870.196	864.305	47.2605	99.9153	99.8676	-.48983	.365284	1502.29
8.606121	.218850	.230292	14.0987	14.3431	14.6117	14.3987	-296.21	869.735	878.627	46.9525	99.7104	99.8676	-.28358	.365284	1502.90
8.622354	.204355	.231973	14.1215	14.3413	14.6131	14.4016	-296.11	870.196	888.483	46.6446	99.7104	100.074	-.28358	-.45983	1502.90
8.638562	.148186	.262505	14.1377	14.3553	14.6005	14.3987	-296.11	870.196	856.913	46.5419	99.7104	99.8676	-.28358	.365284	1502.90
8.662112	.090809	.347939	14.1309	14.3693	14.5671	14.3797	-296.05	869.581	892.795	46.8499	99.7104	99.8676	-.48983	.365284	1502.29
8.680308	.111344	.375389	14.0785	14.3693	14.5559	14.3695	-296.11	870.196	856.451	46.8499	99.3009	99.8676	-.28358	-.25355	1502.90
8.696797	.142750	.383793	14.0502	14.3623	14.5503	14.3578	-296.11	870.196	886.943	46.8499	100.530	100.693	-.28358	.365284	1502.44
8.713117	.201939	.405921	14.1148	14.3501	14.5447	14.3636	-296.30	870.196	877.395	46.8499	99.9153	100.074	-.28358	-.45983	1502.29
8.729322	.259920	.393317	14.1592	14.3553	14.5447	14.3636	-296.11	870.196	858.761	46.9525	98.8913	99.8676	-.28358	-.45983	1502.44
8.746101	.319713	.365866	14.1525	14.3693	14.5461	14.3636	-296.27	869.735	892.795	47.2605	99.9153	99.8676	-.48983	-.45983	1502.29
8.762317	.302801	.314325	14.1323	14.3763	14.5573	14.3592	-296.11	869.581	862.457	42.8461	99.7104	99.8676	-.28358	-.45983	1502.29
8.778530	.223682	.235614	14.0892	14.3798	14.5559	14.3519	-296.05	869.581	871.081	28.3710	99.3009	99.8676	-.28358	-.45983	1502.90
8.795315	.197107	.221048	14.0664	14.3763	14.5559	14.3519	-296.08	870.196	887.867	16.9756	99.0961	99.0422	-.07734	.365284	1502.29
8.811536	.186538	.228891	14.0570	14.3623	14.5573	14.3695	-295.95	870.196	854.757	13.1772	99.5057	99.0422	.335144	-.45983	1502.29
8.827880	.185330	.307322	14.0462	14.3693	14.5671	14.3870	-295.95	869.735	885.403	13.2799	100.530	99.8676	-.28358	.365284	1502.29
8.844050	.214018	.370628	14.0624	14.3886	14.5671	14.3957	-296.11	869.735	877.087	13.9985	99.9153	99.8676	-.48983	-.25355	1502.29
8.869979	.186236	.379031	14.1202	14.4113	14.5461	14.3870	-295.86	869.581	880.937	14.5118	99.7104	99.8676	-.28358	.365284	1502.29
8.887350	.149998	.312925	14.1538	14.4061	14.5252	14.3695	-295.95	870.196	879.705	14.5118	100.530	99.8676	-.28358	-.45983	1502.90
8.903667	.137918	.244578	14.1538	14.3868	14.5168	14.3709	-295.86	870.196	856.297	14.5118	99.7104	99.8676	-.28358	-.25355	1502.90
8.919871	.165701	.234774	14.1054	14.3571	14.5238	14.3709	-295.86	869.735	891.409	14.4091	99.9153	99.8676	-.28358	.365284	1502.29
8.936180	.203147	.231132	14.0798	14.3326	14.5336	14.3738	-295.83	869.581	867.539	14.4091	99.3009	99.0422	.335144	.365284	1502.29
8.952410	.193483	.206483	14.0825	14.3361	14.5392	14.3753	-295.86	869.735	863.689	14.4091	99.0961	99.0422	-.07734	-.45983	1502.29
8.968615	.166909	.219088	14.0610	14.3483	14.5503	14.3753	-295.86	869.581	891.563	14.5118	98.2769	98.2169	.335144	.365284	1502.29
8.985399	.141542	.250460	14.0287	14.3483	14.5671	14.3797	-295.86	870.196	858.299	14.4091	98.2769	98.2169	.335144	.365284	1502.29
9.001621	.151206	.299479	14.0529	14.3553	14.5894	14.3841	-295.86	870.196	876.779	14.4091	98.8665	98.4232	.335144	-.25355	1502.29
9.017883	.191068	.293037	14.0556	14.3781	14.5894	14.3870	-295.83	869.735	885.403	14.4091	99.0961	99.0422	.335144	-.04727	1502.29
9.034121	.200731	.243457	14.0556	14.3833	14.5782	14.3884	-295.83	869.735	855.065	14.4091	99.7104	99.8676	-.28358	.365284	1502.29

269

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	POV	F-A	FCALA 31941A	PFV-1							
PARAMETER	WL02-2	WH20P-2	WH20C-2	PGOT	POJ	F-B	FCALB 31941B								
UNITS	LB-W	LB-W	LB-W	DEG F	PSIA	LBS	LBS	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	14/ 40	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56
9.050353	.181404	.234774	14.0556	14.3711	14.5726	14.3928	-295.60	869.735	886.019	14.4091	99.7104	99.8676	-.28358	.365284	1502.29
9.073189	.120101	.230012	14.0355	14.3693	14.5796	14.3928	-295.83	869.735	861.841	14.5118	99.7104	99.8676	-.28358	-.45983	1502.29
9.089845	.068160	.212085	14.0395	14.3711	14.5894	14.3797	-295.60	870.196	873.545	14.5118	99.7104	99.8676	-.28358	.365284	1502.29
9.108141	.071482	.223009	14.0771	14.3606	14.6019	14.3826	-295.83	870.196	884.941	14.4091	99.7104	99.8676	-.48983	.365284	1502.29
9.124444	.100472	.213765	14.0906	14.3483	14.6117	14.3928	-295.60	870.196	856.297	14.4091	99.7104	99.8676	-.48983	.365284	1502.29
9.140664	.147582	.205082	14.1309	14.3553	14.5894	14.3987	-295.83	870.196	887.097	14.5118	100.530	100.074	-.28358	.365284	1501.83
9.157344	.194691	.229172	14.1646	14.3763	14.5740	14.3987	-295.83	869.735	876.625	14.5118	100.530	100.074	-.28358	-.45983	1501.83
9.173654	.196201	.216847	14.1578	14.3781	14.5726	14.3957	-295.83	870.196	859.993	14.5118	98.8913	99.0422	-.28358	.365284	1501.83
9.189873	.176572	.212085	14.1377	14.3781	14.5671	14.3943	-295.83	869.735	891.409	14.5118	98.8913	98.8359	-.28358	.365284	1501.83
9.205951	.142750	.243457	14.1538	14.3763	14.5671	14.3928	-295.60	870.196	869.849	14.5118	99.7104	99.8676	-.28358	-.25355	1501.83
9.215127	.134295	.267267	14.1632	14.3763	14.5559	14.3826	-295.83	870.196	857.529	14.5118	99.0961	99.0422	-.28358	.365284	1501.83

END FILE

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104 CALIBRATION PERFORMED 09-01-78 13:24:56 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2		PFJ	PH20-J		PC-1		PC-2		POJI		TBL		TAO		TFV1	
PARAMETER	PFVD			PGH20T		PH20-OUT		PC-2		TFJ		TOJ		TIN		DEG F	
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169	57/153		
-.184891	1501.29	1505.54	14.2921	1163.23	1089.31	159.934	14.4170	14.5815	14.5815	84.3489	-275.32	83.3218	84.9646	81.5079	86.8775		
-.168217	1501.29	1505.54	14.4982	1162.61	1090.33	164.072	14.5223	14.5815	14.5815	84.3222	-275.32	83.3553	84.3628	82.1116	86.7307		
-.151900	1500.67	1505.39	14.1890	1162.40	1092.58	169.709	14.4170	14.5815	14.5815	84.3489	-275.05	83.4894	84.8978	82.8489	86.8241		
-.134685	1500.67	1505.39	14.2921	1162.40	1091.97	164.868	14.4170	14.5015	14.5815	84.3757	-276.69	83.3553	84.8644	83.8197	86.6374		
-.117992	1500.67	1505.39	14.2921	1162.40	1090.33	164.072	14.7329	14.5815	14.5815	84.5896	-275.32	83.5900	83.8275	82.1115	86.7801		
-.101678	1500.67	1505.39	14.1890	1162.40	1090.54	167.892	14.7329	14.5815	14.5815	84.3222	-275.32	83.4224	83.6602	80.9709	86.4772		
-.085475	1500.67	1505.70	14.1890	1162.40	1090.95	166.619	14.4170	14.5815	14.7921	84.2687	-275.32	83.3553	83.6602	81.1380	86.5840		
-.068698	1500.67	1505.54	14.2921	1161.58	1087.26	156.433	14.5223	14.5815	14.7921	84.3222	-275.32	83.4894	83.4258	81.5079	86.5306		
-.052475	1500.67	1505.54	14.2921	1161.58	1085.42	147.679	14.7329	14.5815	14.5815	84.3757	-275.52	83.4224	83.9279	81.4008	86.7974		
-.036257	1500.67	1505.39	14.2921	1160.96	1086.04	150.703	14.4170	14.5815	14.5815	84.3489	-276.14	83.3553	84.0952	81.5751	86.6107		
-.019495	1500.67	1505.39	14.2921	1160.96	1088.70	153.006	14.7329	14.5815	14.7921	84.3222	-275.07	83.3553	83.5762	81.6331	86.7174		
-.003264	1500.67	1505.54	14.2921	1160.96	1088.90	153.000	14.7329	14.5815	14.5815	84.3222	-275.32	83.4099	83.8275	80.5009	86.6308		
.021179	1500.67	1505.85	14.1890	1160.76	1080.08	155.159	14.7329	14.5815	14.5815	84.1804	-273.71	83.3218	84.3628	81.5751	86.4772		
.039671	1500.67	1505.54	14.4902	1160.76	1090.54	162.162	14.6276	14.5815	14.5815	84.2687	-273.64	83.3218	84.0616	81.7092	86.6107		
.055889	1499.89	1504.92	14.7043	1160.76	1089.72	157.865	14.7329	14.5815	21.2159	84.1616	-274.25	83.6906	83.9614	81.5751	86.5707		
.072204	1496.00	1501.04	15.7340	1160.76	1085.63	156.592	14.7329	14.5815	51.6496	83.7870	-273.71	85.0972	83.7939	81.7092	86.3038		
.089415	1489.46	1494.83	17.5097	1160.76	1085.42	149.429	14.7329	14.8917	190.971	83.9476	-273.44	84.9209	84.6303	81.8099	86.9967		
.105630	1403.71	1488.16	19.1355	1159.93	1087.67	140.952	14.7329	14.8917	340.085	84.1884	-273.17	82.8837	84.1956	80.0976	86.6399		
.122403	1476.86	1481.79	21.0934	1159.93	1087.67	149.429	14.7329	14.8917	411.167	84.0413	-272.90	80.2646	84.1620	79.8959	86.0234		
.138638	1470.02	1475.12	22.7423	1159.11	1085.63	147.520	15.0488	14.8917	423.909	84.1483	-272.10	78.4791	84.1620	80.3320	86.0234		
.154873	1464.42	1469.37	24.0819	1159.32	1084.40	150.066	15.0488	14.9951	417.696	84.2553	-271.56	77.6354	84.0616	80.7023	85.7296		
.171168	1450.35	1462.70	25.0094	1159.32	1087.26	158.979	14.8382	14.9951	410.957	83.9476	-271.02	76.7571	84.3293	80.5009	85.3556		
.188385	1453.99	1456.96	25.8338	1159.32	1090.95	162.799	15.0488	14.9951	408.219	83.4926	-270.95	76.3177	84.7306	78.7522	84.4465		
.205077	1449.48	1454.01	26.4521	1159.32	1090.33	163.595	15.1541	14.8917	407.797	83.7736	-270.21	75.7763	86.3339	82.7484	83.7907		
.229583	1448.71	1453.23	27.0704	1159.11	1084.40	158.024	14.8382	14.9951	409.166	83.7201	-269.68	75.4041	85.5660	82.3798	83.3622		
.248394	1449.64	1454.01	27.8948	1159.11	1083.17	156.592	14.8382	14.8917	410.535	83.4390	-269.14	75.1332	84.9980	82.4803	83.0005		
.264891	1450.57	1455.09	28.3070	1159.11	1086.04	162.003	14.8382	14.8917	411.799	83.4926	-268.87	74.9978	85.3990	83.3846	83.1613		
.281108	1451.35	1455.72	28.6162	1159.11	1087.26	164.072	14.8382	14.9951	412.957	83.1444	-268.34	74.8623	84.6303	82.4803	83.0274		
.297316	1452.13	1456.49	29.1314	1159.11	1086.24	162.958	14.8382	14.9951	413.905	82.9032	-267.74	74.8284	83.7939	80.5009	82.8799		
-.315887	1452.75	1457.27	29.3375	1158.49	1087.06	160.412	15.2594	14.8917	414.537	82.8229	-267.47	74.5235	83.9614	81.3066	82.8263		
.3320298	1453.84	1458.20	29.5436	1158.29	1085.42	155.159	15.4700	15.4086	415.590	82.6353	-267.27	74.4218	84.3293	81.5751	82.6521		
.336997	1454.46	1458.82	29.7497	1158.29	1081.95	149.429	14.8382	14.9951	416.433	82.6353	-267.27	74.4218	83.8275	82.2122	82.8665		
.353293	1454.93	1459.44	29.7497	1158.29	1081.95	151.339	15.0488	14.8917	417.275	82.6353	-267.14	74.3201	84.5969	82.0446	82.8263		
.369516	1455.08	1460.06	30.1619	1157.88	1088.08	161.526	14.8382	14.9951	418.433	82.4476	-266.94	74.6928	83.7939	81.3737	82.8665		
.386212	1455.86	1460.84	30.1619	1157.46	1092.17	167.096	14.8382	14.9951	419.697	81.8979	-266.74	74.1845	84.0616	80.1648	82.8263		
.402520	1456.48	1460.99	29.7497	1157.46	1088.08	157.706	14.8382	14.9951	420.540	81.6430	-266.47	74.0488	84.3293	80.6016	82.6655		
.426428	1457.11	1461.92	30.2650	1157.46	1080.72	156.592	14.8382	14.9951	421.803	81.8577	-266.47	73.8793	85.0315	82.4803	82.7191		
.444654	1457.73	1462.08	30.2650	1157.46	1083.99	156.433	14.8382	14.8917	423.067	81.7772	-265.40	73.8793	84.7306	81.5751	82.7593		
.460769	1458.35	1462.86	30.1619	1157.46	1085.42	155.796	15.0488	14.9951	424.015	81.7772	-265.67	73.8793	83.2918	79.6606	82.9336		
.476983	1458.66	1463.17	30.1619	1157.46	1085.42	161.526	14.8382	14.9951	424.857	81.6967	-265.60	73.8793	82.6216	79.3916	83.0005		
.494289	1459.44	1463.79	30.1619	1156.85	1086.45	168.529	15.0488	14.8917	426.016	81.4820	-265.54	73.5062	83.5596	80.0976	82.8397		
.510504	1459.44	1464.41	30.1619	1156.85	1085.42	164.868	14.8382	14.9951	426.542	81.2538	-265.67	73.6080	83.9279	78.7186	82.7861		
.527201	1459.60	1464.41	30.2650	1157.46	1084.40	166.141	15.0488	14.9951	427.279	81.3209	-265.40	73.5062	83.6267	80.9038	82.7191		
.544500	1459.91	1464.56	30.3680	1156.85	1082.76	165.982	14.8382	14.9951	427.806	81.4015	-265.60	73.3026	83.8275	81.0045	82.9336		
.560702	1460.37	1465.03	30.6772	1156.64	1083.99	167.892	15.0488	14.9951	428.648	81.3746	-265.67	74.1506	83.5262	80.5009	82.9738		
.577015	1460.68	1465.18	30.7802	1156.02	1083.79	164.231	14.8382	14.9951	429.385	81.3478	-265.40	72.8273	83.2583	80.7360	83.1479		
.593235	1453.68	1454.63	52.5240	1156.02	1083.17	160.889	15.0488	14.9951	429.280	83.1979	-265.67	56.6046	83.8275	81.1724	82.5180		
.609456	1418.53	1253.46	318.086	1155.82	1082.35	162.799	48.0078	46.4245	424.857	82.2867	-266.14	-4.1577	85.6663	82.3128	75.5443		
.634978	1397.99	924.231	845.191	1155.82	1080.51	162.799	168.577	169.144	419.487	74.7991	-266.07	-190.73	84.3628	80.1648	76.3010		

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2		PFJ		PH20-J		PC-1		POJI		TBL		TAD		TFV1	
PARAMETER	PFVD		PGH20T		PH20-OUT		PC-2		TFJ		TOJ		TIN		TFV F	
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169	57/153	
.651472	1404.06	922.057	980.085	1155.82	1080.51	166.778	375.387	373.435	419.697	79.0629	-266.20	-257.34	84.6303	80.0640	79.5095	
.668151	1411.06	988.183	1032.43	1155.82	1078.88	170.439	539.971	536.371	421.066	84.9105	-266.14	-269.29	83.9279	79.6606	82.4108	
.684464	1415.72	1043.44	1051.40	1155.82	1077.45	164.231	599.466	596.956	422.540	87.5793	-265.94	-262.89	82.7223	79.1561	83.1077	
.700668	1418.84	1072.93	1060.46	1155.82	1077.45	165.345	606.205	605.020	423.909	87.6193	-265.67	-257.93	82.4877	78.9878	82.5985	
.716964	1420.08	1084.42	1066.44	1155.82	1081.95	171.712	600.730	600.057	424.647	86.6062	-265.34	-258.20	83.2583	79.6606	82.2365	
.733194	1421.33	1087.53	1070.56	1155.82	1085.42	168.051	596.518	595.612	425.594	85.5384	-265.67	-259.71	84.3628	80.0640	81.8742	
.749415	1422.10	1088.15	1072.32	1154.99	1081.95	164.709	594.517	593.854	426.016	84.6832	-265.67	-261.10	86.5007	80.7695	81.9815	
.766187	1422.73	1088.30	1073.04	1154.99	1078.26	161.526	594.412	593.544	426.121	84.5763	-264.60	-262.89	89.3984	81.4408	82.2900	
.782409	1422.88	1088.15	1073.24	1154.58	1077.45	155.159	595.991	594.991	425.173	84.5361	-265.60	-264.28	92.3194	80.8366	82.6254	
.799100	1423.04	1088.61	1073.14	1154.99	1078.06	152.772	596.939	596.335	426.360	84.5763	-265.87	-265.81	96.5834	79.8287	82.9336	
.815403	1423.04	1088.61	1073.04	1154.58	1080.51	155.159	597.255	596.439	426.316	84.6832	-265.67	-265.88	101.647	80.3328	83.1613	
.840814	1422.73	1087.68	1072.42	1154.17	1081.33	158.979	596.939	596.439	426.108	84.9105	-265.94	-268.49	109.448	80.7023	83.3622	
.860265	1422.73	1087.53	1072.01	1154.17	1079.08	159.616	598.202	597.369	426.8270	84.9105	-265.94	-269.02	114.827	79.5261	83.2685	
.878038	1422.88	1087.06	1071.80	1154.17	1078.88	160.412	598.624	597.576	426.5567	84.9640	-265.67	-269.56	119.595	81.2730	83.1613	
.894246	1422.26	1087.06	1071.39	1154.17	1079.08	164.231	598.202	597.162	427.7632	84.7501	-265.67	-272.25	123.828	81.1724	83.0408	
.911937	1422.10	1086.44	1070.67	1153.35	1080.51	165.823	597.676	596.439	426.6023	84.6832	-266.20	-270.63	126.766	79.7615	83.0944	
.928246	1421.64	1086.28	1070.36	1153.35	1081.13	171.712	598.202	597.162	426.9688	84.6967	-265.67	-271.71	130.331	79.8959	82.8263	
.944454	1422.10	1086.13	1069.95	1153.55	1081.95	174.258	598.413	597.162	427.0202	84.5763	-265.47	-272.32	131.982	79.4252	82.5985	
.961147	1421.64	1085.82	1069.95	1153.35	1081.95	178.238	598.413	597.162	427.4928	84.5763	-265.34	-272.25	134.421	79.6606	82.5985	
.977457	1421.48	1085.66	1069.53	1152.94	1081.33	178.238	598.939	597.576	427.3867	84.5896	-265.34	-271.78	136.948	79.9296	82.4376	
.993666	1421.01	1085.66	1069.12	1152.94	1080.51	174.895	597.676	596.025	427.5965	84.6832	-265.94	-272.52	139.437	80.9038	82.2900	
1.009956	1420.70	1085.04	1068.71	1152.73	1077.45	169.961	596.728	595.508	427.3328	84.4827	-264.87	-273.33	141.104	80.9038	82.1962	
1.026181	1420.55	1084.42	1068.30	1152.52	1076.63	165.505	596.623	595.095	427.8585	84.4827	-264.60	-273.94	142.830	81.3066	82.2900	
1.051125	1420.08	1083.18	1067.27	1152.52	1079.08	174.258	595.570	593.958	427.5418	84.1483	-264.54	-273.67	144.491	80.6016	82.1426	
1.067978	1419.77	1082.71	1066.85	1152.52	1080.51	175.691	595.570	593.854	428.8568	84.3489	-264.54	-273.94	146.867	81.2730	82.1962	
1.084166	1420.24	1082.56	1066.24	1152.52	1078.88	174.418	595.991	594.268	426.6985	84.4693	-264.07	-274.95	147.835	80.7023	82.1962	
1.100858	1419.61	1082.56	1066.13	1151.70	1077.24	174.258	595.991	594.268	427.5401	84.2687	-264.01	-275.75	148.832	80.8366	81.9681	
1.117159	1419.61	1082.09	1065.82	1151.70	1077.45	172.349	596.833	595.198	427.5923	84.1616	-264.07	-276.09	149.829	80.6016	81.8071	
1.133374	1419.15	1082.09	1066.13	1151.70	1079.90	173.622	597.676	595.612	427.1711	84.0814	-264.07	-276.57	150.078	80.6016	81.6729	
1.151150	1418.84	1081.94	1065.62	1151.70	1078.88	167.096	596.518	595.095	427.7499	84.0546	-264.01	-276.85	151.105	80.8366	81.5924	
1.167362	1418.53	1081.94	1065.20	1151.50	1077.45	161.685	597.676	595.922	427.7499	83.8271	-263.87	-276.57	151.820	80.9709	81.4314	
1.183571	1418.37	1081.47	1065.20	1151.70	1077.24	162.799	598.097	596.439	427.0127	83.5594	-263.74	-276.44	152.565	80.9038	81.2568	
1.200335	1418.21	1081.47	1065.00	1151.70	1076.22	158.979	597.255	596.025	427.9074	83.4926	-263.01	-276.09	152.565	80.0976	81.3374	
1.217555	1417.90	1081.32	1064.59	1151.08	1075.40	157.228	597.360	596.335	428.5915	83.6130	-263.54	-276.85	152.690	80.0976	81.4850	
1.233858	1418.53	1080.85	1064.48	1151.08	1076.63	158.502	596.939	595.612	428.6968	83.7335	-263.48	-277.40	153.310	79.5598	81.4716	
1.257303	1417.75	1080.70	1063.87	1150.88	1077.45	158.502	597.360	596.335	428.4862	83.7335	-263.54	-277.81	155.294	81.8099	81.2837	
1.275311	1417.75	1080.70	1063.76	1150.05	1078.88	165.345	597.360	596.335	428.4862	83.7201	-263.74	-277.81	155.666	81.6757	81.0554	
1.293093	1417.75	1080.70	1063.45	1150.88	1079.08	163.436	596.833	595.612	428.5915	83.6130	-263.74	-278.22	156.656	83.1838	80.9479	
1.309327	1417.28	1080.07	1063.35	1150.47	1077.24	164.709	596.939	595.922	428.4862	83.4658	-263.54	-278.22	156.934	82.8824	80.8002	
1.318530	1417.28	1080.07	1063.35	1150.88	1075.81	169.165	597.360	596.335	428.4862	83.4122	-264.87	-278.22	156.161	82.8824	80.8539	
1.335305	1417.28	1080.07	1063.35	1150.05	1077.45	169.165	597.886	597.162	428.4862	83.3051	-264.01	-278.02	156.780	83.2842	81.0688	
1.351527	1417.28	1079.76	1063.14	1150.05	1077.24	170.598	597.676	596.439	428.4862	83.2515	-264.34	-277.95	156.130	81.5751	80.8002	
1.367850	1417.28	1079.61	1062.94	1150.05	1074.99	168.051	596.939	595.922	428.4862	83.2917	-264.07	-278.78	156.285	82.2457	80.7330	
1.384030	1417.28	1079.61	1062.83	1150.05	1073.15	166.141	597.255	596.025	428.4862	83.4523	-263.54	-278.78	157.429	84.3549	80.7330	
1.401262	1417.75	1079.61	1062.53	1150.05	1077.45	171.712	597.781	596.542	428.1703	83.2917	-263.94	-279.40	157.645	83.8197	80.6255	
1.417946	1417.28	1079.45	1062.53	1149.44	1081.54	170.439	597.886	596.749	428.1703	83.0908	-263.81	-279.33	157.336	81.9775	80.5718	
1.434252	1417.75	1079.45	1062.83	1149.44	1078.88	168.051	598.308	597.162	428.3809	83.1310	-263.81	-278.29	157.058	82.9159	80.5852	
1.457822	1417.90	1079.45	1062.53	1149.44	1072.33	161.685	597.676	596.439	428.3809	83.0641	-263.81	-278.78	157.151	81.9775	80.5852	
1.477296	1418.06	1078.83	1062.11	1149.44	1074.17	166.778	596.939	595.922	428.1703	82.0051	-263.54	-279.40	157.274	80.8366	79.4556	

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	TFV1
PARAMETER	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN	
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92
	35/ 93	59/157	60/160	61/161	62/168	63/169	57/153	
1.493526	1417.90	1078.83	1062.01	1149.64	1076.63	166.619	597.676	596.439
1.509863	1417.90	1078.83	1061.91	1149.23	1075.40	160.252	598.097	596.956
1.526033	1417.90	1078.99	1061.91	1149.23	1073.97	163.595	598.097	596.852
1.543235	1417.90	1078.68	1061.19	1149.23	1074.17	164.709	597.676	596.749
1.559925	1417.90	1078.37	1061.19	1149.23	1075.81	166.141	597.255	596.025
1.576234	1417.90	1078.21	1061.19	1149.23	1075.81	165.345	597.360	596.335
1.592443	1417.90	1078.21	1060.88	1148.41	1075.81	164.072	598.413	597.266
1.610224	1417.75	1078.37	1061.19	1148.41	1074.99	166.778	598.308	597.473
1.626453	1417.90	1078.37	1061.19	1148.41	1074.17	163.436	597.676	596.646
1.643660	1418.21	1078.21	1060.88	1148.41	1074.99	167.892	597.360	596.335
1.660233	1418.21	1077.75	1060.77	1148.41	1077.24	164.072	598.097	597.162
1.686217	1418.37	1077.75	1061.19	1147.79	1075.81	159.616	598.097	597.162
1.703425	1418.53	1078.21	1061.60	1147.79	1072.95	155.159	598.202	597.266
1.719738	1418.53	1077.75	1060.88	1147.59	1069.88	152.613	598.097	597.162
1.735947	1418.37	1077.59	1060.77	1147.79	1072.33	155.318	597.676	596.439
1.752255	1418.37	1077.44	1060.36	1147.79	1075.60	158.342	597.781	596.852
1.768476	1418.53	1077.59	1060.67	1147.59	1074.99	155.796	598.729	597.990
1.784694	1420.55	1078.21	1061.19	1147.59	1072.33	154.523	598.624	597.990
1.801461	1425.21	1079.45	1062.53	1147.59	1071.72	155.955	598.097	597.162
1.817685	1429.57	1081.32	1063.76	1147.59	1073.97	160.252	598.202	597.266
1.833904	1432.06	1083.18	1065.20	1147.59	1075.81	162.799	598.097	597.162
1.850218	1432.06	1083.49	1065.82	1147.59	1076.63	164.072	597.676	596.749
1.875076	1430.66	1083.96	1066.24	1147.59	1074.17	161.526	598.518	597.576
1.894279	1430.19	1083.80	1066.13	1147.59	1073.97	160.412	598.308	597.266
1.910419	1429.26	1083.18	1065.62	1146.76	1072.54	161.526	598.308	597.266
1.926619	1428.48	1082.56	1065.20	1146.76	1073.97	164.550	598.308	597.266
1.943392	1427.86	1082.56	1065.00	1146.76	1073.97	166.937	598.202	597.266
1.959613	1427.24	1081.94	1064.79	1146.76	1074.58	174.258	598.097	597.162
1.975855	1427.08	1081.94	1064.48	1146.76	1073.97	178.078	598.202	597.162
1.992138	1425.99	1081.47	1063.97	1145.94	1074.99	179.352	598.518	597.576
2.009351	1425.68	1081.32	1063.76	1146.14	1076.22	179.511	599.782	598.817
2.026040	1425.37	1081.32	1063.76	1146.35	1072.95	167.892	599.466	598.403
2.042357	1425.21	1080.85	1063.25	1146.35	1068.44	160.412	598.413	597.576
2.058573	1424.59	1080.70	1062.83	1146.14	1067.63	164.391	598.308	597.473
2.084365	1423.50	1080.23	1062.53	1145.94	1075.81	172.349	598.939	597.990
2.101032	1423.50	1080.07	1062.53	1145.94	1076.63	172.985	598.624	597.473
2.118245	1423.19	1079.45	1061.91	1145.94	1072.54	174.258	598.202	597.162
2.135009	1422.41	1079.45	1061.70	1145.94	1069.67	173.622	598.939	597.990
2.152234	1422.26	1078.99	1061.50	1145.94	1070.70	175.054	598.939	597.990
2.169927	1422.10	1078.83	1061.19	1145.94	1073.15	176.328	598.097	596.956
2.186232	1422.10	1078.37	1060.67	1145.94	1074.58	176.805	597.255	596.335
2.202440	1422.10	1077.75	1060.46	1145.94	1074.17	175.691	597.676	596.646
2.219134	1421.64	1077.75	1060.67	1145.94	1072.54	167.892	599.045	598.093
2.235426	1422.10	1078.21	1060.77	1145.94	1070.70	168.051	599.361	598.093
2.252636	1421.48	1078.21	1060.67	1145.94	1070.70	172.985	599.782	598.507
2.268941	1422.10	1078.37	1060.88	1145.94	1070.70	173.144	599.782	598.817
2.292973	1421.64	1078.37	1061.19	1145.94	1072.54	179.352	599.993	598.817
2.310968	1422.10	1078.68	1061.19	1145.94	1073.97	173.781	600.203	598.817
2.314243	1422.10	1078.37	1061.19	1144.50	1072.54	171.712	599.045	597.990

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	TFV1							
PARAMETER	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN								
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F							
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92							
	35/ 93	59/157	60/160	61/161	62/168	63/169	57/153								
2.330465	1422.10	1078.21	1060.88	1145.94	1070.70	171.075	598.624	597.990	14.5815	80.4481	-252.00	-282.47	157.768	81.1388	77.9876
2.347156	1422.10	1078.06	1060.46	1145.12	1070.90	173.144	599.361	598.093	14.4762	80.4077	-251.67	-282.68	157.645	81.1388	78.0281
2.363449	1422.10	1077.75	1060.67	1145.32	1073.15	176.805	599.255	598.093	14.5815	80.5152	-251.48	-282.75	158.386	81.7092	78.0686
2.379659	1422.10	1077.75	1060.57	1145.12	1073.15	169.325	599.782	598.817	14.5815	80.6093	-251.48	-282.75	158.540	82.3463	77.7720
2.395956	1422.10	1077.90	1060.46	1145.12	1068.44	164.072	599.782	598.507	14.4762	80.4614	-251.22	-283.04	158.263	82.3463	77.9876
2.412180	1422.10	1078.21	1060.46	1144.50	1066.60	161.526	599.466	598.403	14.4762	80.3002	-251.48	-282.75	157.768	81.1388	77.9337
2.428393	1422.10	1078.21	1060.67	1144.70	1070.70	166.619	598.939	597.990	14.5815	80.2464	-251.74	-282.12	157.645	80.2993	77.8798
2.445178	1421.48	1077.75	1060.46	1145.12	1073.97	165.345	599.361	597.990	14.4762	80.0179	-251.74	-282.68	157.645	80.7360	77.8124
2.461385	1421.64	1077.59	1060.36	1144.29	1072.95	165.505	599.571	598.403	14.4762	80.1927	-251.48	-283.04	158.510	81.6757	77.7855
2.484425	1421.64	1078.21	1060.46	1145.12	1068.85	158.979	599.466	598.507	14.4762	79.9238	-250.96	-282.40	158.510	81.1724	77.4619
2.503050	1422.10	1078.21	1060.67	1144.50	1071.72	166.778	599.045	598.093	14.4762	79.9776	-250.45	-283.25	157.923	81.2730	77.6776
2.519122	1422.10	1077.75	1060.36	1144.29	1072.33	161.685	598.097	596.852	14.4762	79.9776	-250.19	-283.04	157.707	81.1388	77.7045
2.535896	1422.10	1077.28	1059.64	1144.29	1068.44	154.523	597.992	597.162	14.5815	79.9776	-250.19	-283.53	158.880	81.5751	77.6102
2.552127	1422.10	1077.28	1059.64	1144.29	1066.60	159.138	598.308	597.266	14.4762	79.9776	-249.87	-283.25	159.744	81.4072	77.5967
2.568334	1421.64	1077.13	1059.54	1144.29	1070.90	169.165	599.361	598.403	14.4762	79.9104	-249.42	-283.39	160.298	82.2457	77.5562
2.586104	1422.10	1077.59	1060.05	1144.29	1075.40	176.805	599.782	598.817	14.4762	79.8566	-249.42	-283.53	159.867	82.0781	77.3943
2.603341	1422.10	1077.75	1060.36	1144.29	1074.17	178.238	599.782	598.817	14.4762	79.9104	-249.35	-283.53	160.021	82.6478	77.2864
2.620023	1422.10	1077.59	1060.26	1143.67	1071.72	169.165	598.939	597.990	14.4762	79.8566	-249.16	-285.59	158.787	81.8099	77.4079
2.636325	1422.10	1077.75	1059.95	1144.29	1067.63	161.526	598.202	597.266	14.4762	79.7625	-247.88	-283.60	158.756	82.4803	77.2460
2.652541	1421.64	1077.13	1059.95	1143.67	1065.99	153.886	598.308	597.162	14.4762	79.6549	-248.90	-283.67	158.880	83.1168	77.1381
2.669230	1422.10	1077.59	1059.95	1143.67	1070.70	161.685	598.413	597.576	14.4762	79.6549	-248.84	-283.60	159.127	82.7818	76.9761
2.692741	1422.10	1077.59	1059.85	1144.29	1073.97	165.505	598.413	597.473	14.4762	79.7894	-248.90	-283.04	159.250	82.3798	77.2325
2.713201	1422.10	1077.59	1059.95	1143.47	1066.81	158.979	599.150	597.990	14.4762	79.7490	-248.65	-283.60	159.127	82.2457	77.1246
2.729885	1422.10	1077.75	1059.95	1142.85	1064.76	158.979	599.361	598.093	14.4762	79.4800	-248.26	-284.52	159.034	81.8099	76.8546
2.746193	1422.10	1077.59	1060.05	1143.06	1068.85	162.799	600.098	598.920	14.4762	79.4263	-248.39	-284.38	158.664	82.4803	76.8141
2.762399	1421.64	1077.59	1060.36	1142.85	1074.17	167.892	599.993	598.920	14.4762	79.3320	-248.39	-284.52	158.355	82.3128	76.8006
2.779168	1421.64	1077.59	1060.36	1143.47	1074.58	170.598	599.782	598.817	14.4762	79.4800	-248.07	-284.17	157.768	81.3066	76.9087
2.795390	1421.64	1077.75	1060.36	1143.06	1072.33	172.349	600.203	598.920	14.4762	79.1168	-249.35	-284.10	157.768	81.5079	76.8141
2.811599	1422.10	1077.75	1060.36	1142.85	1068.24	166.778	599.466	598.507	14.4762	79.1706	-249.42	-284.24	158.787	83.8532	76.7466
2.828379	1421.64	1077.59	1059.95	1142.85	1064.76	158.979	599.045	598.093	14.4762	79.1168	-248.39	-284.95	158.880	82.9159	76.8412
2.844598	1422.10	1077.59	1059.95	1143.06	1066.40	164.868	599.887	598.817	14.4762	79.1572	-248.65	-284.24	159.250	83.5854	76.8006
2.860870	1422.10	1077.75	1060.05	1142.85	1073.97	172.189	599.782	598.610	14.4762	77.9586	-248.33	-283.53	159.034	83.5854	76.6386
2.877100	1422.10	1077.75	1060.05	1142.65	1075.40	174.258	599.677	598.507	14.4762	78.9283	-247.88	-284.52	158.510	83.1503	76.5711
2.901513	1422.10	1077.75	1060.36	1142.85	1069.88	177.283	599.887	598.920	14.4762	78.9014	-247.62	-284.67	159.003	82.9159	76.4766
2.922942	1420.24	1077.44	1059.95	1142.65	1065.99	166.778	599.782	598.317	14.4762	79.1168	-248.14	-284.74	159.744	82.0781	76.5577
2.940249	1421.48	1077.59	1059.64	1142.65	1065.17	164.868	599.045	597.990	14.1603	79.1033	-248.33	-284.67	159.828	82.2457	76.3920
2.956455	1421.48	1077.13	1059.54	1142.65	1067.42	164.072	598.939	597.990	14.1603	78.7264	-248.14	-284.52	158.046	81.8434	76.3685
2.973157	1421.64	1076.97	1059.12	1142.65	1071.72	170.439	598.413	597.576	14.4762	78.7399	-248.14	-284.67	160.021	84.6224	76.2606
2.989461	1421.64	1077.90	1058.82	1142.65	1071.72	164.072	598.202	597.162	14.4762	78.9014	-248.14	-285.02	161.961	86.8925	76.1389
3.005670	1421.64	1076.97	1059.02	1141.82	1068.44	158.979	598.097	597.266	14.4762	78.8880	-247.82	-284.95	161.469	86.6257	76.1119
3.021981	1422.10	1076.97	1059.12	1142.65	1067.42	156.751	597.886	597.162	14.4762	78.7399	-247.11	-284.67	160.052	84.6224	75.9904
3.038218	1422.10	1076.97	1059.12	1142.65	1067.42	155.796	598.413	597.473	14.4762	78.5648	-246.35	-284.52	159.250	82.9159	76.0443
3.055442	1422.10	1076.97	1059.54	1142.65	1068.85	157.706	598.624	597.990	14.4762	78.4571	-245.84	-284.52	159.990	82.8824	75.7065
3.072198	1422.10	1076.97	1059.23	1142.65	1070.70	159.616	597.781	597.162	14.4762	78.5244	-246.03	-284.67	159.990	82.7818	75.8281
3.088430	1422.10	1076.97	1059.12	1142.65	1070.70	157.706	597.676	596.646	14.4762	78.5648	-245.84	-283.88	158.633	81.5415	75.9633
3.112482	1422.10	1076.97	1059.54	1142.65	1065.99	157.069	598.939	597.990	14.4762	78.4571	-247.37	-285.02	158.386	81.1724	75.9904
3.131382	1422.10	1077.13	1059.95	1142.65	1067.42	157.228	599.466	598.507	14.4762	78.4031	-247.37	-284.95	158.510	82.3798	75.9498
3.147425	1422.10	1077.59	1059.64	1142.65	1068.44	164.072	599.045	598.093	14.4762	78.5109	-246.35	-284.59	158.756	83.3177	75.9498
3.164200	1422.10	1077.13	1059.95	1142.65	1070.90	172.349	599.466	598.403	14.4762	78.4571	-246.03	-283.88	158.818	83.0164	75.9363



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	TFV
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92
	59/157	60/160	61/161	62/168	63/169	64/170	65/171	66/172
3.180431	1422.10	1077.13	1059.64	1142.65	1072.54	178.715	599.782	598.507
3.196636	1422.10	1077.59	1059.95	1142.65	1070.70	174.258	600.203	599.127
3.213428	1422.10	1078.21	1060.46	1142.03	1064.35	166.141	600.203	599.644
3.229649	1422.10	1077.90	1060.05	1141.82	1064.35	171.871	599.993	598.920
3.245865	1422.10	1077.75	1060.05	1141.82	1068.85	176.964	599.466	598.403
3.262172	1422.10	1077.75	1059.85	1141.82	1070.90	178.078	598.939	597.990
3.278355	1422.10	1077.44	1059.54	1141.82	1069.88	173.144	598.518	597.990
3.295060	1422.10	1077.13	1059.54	1141.82	1068.24	170.439	599.361	598.196
2.318634	1422.10	1077.59	1059.64	1141.21	1066.81	166.619	599.361	598.300
3.329218	1422.10	1077.59	1060.05	1141.41	1068.44	171.075	601.046	600.057
3.345900	1422.10	1078.21	1060.46	1141.21	1068.85	174.258	601.256	600.471
3.363102	1422.10	1077.90	1060.36	1141.21	1069.31	176.078	600.624	599.644
3.380316	1422.10	1078.21	1060.26	1141.21	1069.88	172.349	600.203	599.334
3.397095	1422.10	1077.75	1060.36	1141.21	1064.35	160.252	599.887	598.817
3.413326	1422.10	1077.59	1059.95	1141.41	1060.88	154.523	598.939	597.990
3.430016	1421.64	1077.13	1059.54	1141.00	1062.72	153.249	598.939	597.990
3.446324	1422.10	1076.97	1058.82	1141.00	1068.04	158.979	598.097	597.266
3.462529	1422.10	1076.35	1058.82	1141.00	1070.90	166.141	599.361	597.990
3.479229	1422.10	1076.97	1059.23	1141.00	1069.26	162.958	599.782	598.817
3.496536	1422.10	1077.13	1059.64	1141.00	1065.99	162.799	599.993	598.920
3.520132	1422.10	1077.59	1059.95	1141.00	1068.85	169.165	600.203	599.230
3.538743	1422.10	1077.59	1059.85	1141.00	1070.90	173.463	599.361	598.300
3.554862	1422.10	1077.44	1059.54	1141.00	1070.70	175.532	598.939	597.990
3.571063	1422.10	1077.28	1059.54	1141.00	1068.85	174.258	599.782	598.817
3.587373	1422.10	1077.59	1059.95	1141.00	1065.99	165.982	601.046	600.057
3.603589	1422.26	1077.75	1060.05	1141.00	1062.72	162.162	600.414	599.747
3.620289	1422.26	1077.59	1059.95	1141.00	1065.79	164.231	599.782	598.817
3.636591	1422.26	1077.59	1059.95	1141.00	1067.63	166.778	599.887	598.920
3.652802	1422.10	1077.75	1059.95	1141.00	1069.88	173.144	599.782	598.817
3.669103	1422.26	1077.59	1059.95	1141.00	1070.08	174.895	599.361	598.993
3.685330	1422.73	1077.59	1059.95	1141.00	1068.44	171.712	598.624	597.990
3.701543	1422.73	1077.44	1059.54	1141.00	1065.99	170.598	598.939	597.990
3.726407	1422.10	1077.59	1059.64	1141.00	1062.72	161.048	601.046	599.127
3.743821	1422.10	1077.59	1059.85	1141.00	1064.35	162.799	600.203	598.920
3.760503	1422.26	1077.90	1059.85	1140.18	1070.70	169.165	600.414	599.644
3.777819	1422.26	1078.21	1060.05	1141.00	1068.44	160.730	600.624	599.747
3.794034	1422.10	1078.21	1060.05	1140.38	1063.33	155.318	600.308	599.230
3.810332	1422.26	1077.75	1060.05	1140.18	1064.15	159.297	599.361	598.507
3.826559	1422.10	1077.75	1059.95	1140.18	1069.26	166.619	599.782	598.817
3.842763	1422.10	1077.75	1059.85	1140.18	1071.51	172.349	599.887	598.920
3.859534	1422.10	1077.75	1059.95	1140.18	1068.85	176.009	600.203	598.920
3.875770	1422.26	1077.90	1059.95	1140.18	1065.99	172.985	601.046	600.057
3.891983	1422.10	1078.21	1060.26	1140.18	1065.17	170.598	601.046	600.471
3.908295	1422.73	1078.21	1060.36	1139.76	1068.24	174.258	600.308	599.644
3.931864	1422.73	1077.90	1060.36	1139.56	1070.08	170.598	600.203	599.334
3.950296	1422.26	1078.21	1060.16	1139.76	1065.79	165.345	599.782	598.920
3.967517	1422.10	1077.28	1059.54	1139.56	1062.51	164.709	598.518	597.990
3.983725	1422.10	1077.13	1059.54	1139.56	1062.72	167.892	598.939	597.990
4.000503	1422.10	1077.13	1059.54	1139.56	1064.97	173.144	599.887	598.817

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PEV-2	PEJ	PH20-J	PC-1	POJI	TBL	TAO	TFV1							
PARAMETER	PFV-2	PFJ	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN							
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F							
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169	57/153
4.016728	1422.10	1077.28	1059.54	1139.56	1068.44	175.532	599.466	598.403	14.0550	76.0292	-261.42	-285.88	159.744	81.9105	73.3512
4.032946	1422.26	1077.28	1059.64	1139.56	1070.08	174.258	599.466	598.507	14.0550	75.8671	-261.42	-285.59	158.880	81.1388	73.3512
4.049247	1422.73	1077.59	1060.05	1139.56	1068.24	165.345	600.203	599.127	14.4762	75.8131	-261.42	-285.59	158.417	81.1388	73.2835
4.065465	1422.88	1077.75	1060.05	1139.35	1062.31	157.706	600.203	599.023	14.0550	75.7185	-261.88	-285.88	159.003	81.3066	73.4055
4.082150	1422.73	1077.90	1060.05	1139.35	1061.90	161.526	600.203	599.644	14.0550	75.7455	-261.16	-283.60	158.510	80.6016	73.2428
4.098476	1422.88	1078.21	1060.46	1139.35	1068.04	169.802	601.046	600.161	14.0550	75.6645	-260.83	-285.88	158.016	80.3665	73.0259
4.114684	1422.88	1078.37	1060.67	1139.35	1073.15	172.349	600.730	599.851	14.1603	75.6510	-259.84	-285.88	157.799	80.8366	73.0123
4.138686	1422.73	1078.37	1060.77	1139.35	1065.79	161.526	600.730	600.057	14.0550	75.5428	-257.99	-286.09	157.799	81.1388	73.0123
4.157313	1422.73	1078.21	1060.67	1139.35	1061.08	162.958	600.624	599.334	14.1603	75.5428	-257.73	-286.17	158.263	81.8099	72.9716
4.173849	1422.73	1078.21	1060.36	1139.35	1065.17	165.345	599.887	598.817	14.2656	75.4888	-257.21	-285.95	158.294	81.7092	73.0123
4.190153	1422.73	1077.90	1060.05	1139.35	1067.42	161.526	599.782	598.817	14.1603	75.3807	-256.68	-286.17	158.263	80.7695	72.7953
4.206351	1422.41	1077.75	1060.36	1139.35	1067.42	159.616	600.098	599.230	14.0550	75.2860	-256.16	-286.09	157.398	81.1388	72.7004
4.223047	1422.10	1077.75	1060.05	1139.35	1065.79	159.616	599.782	598.817	14.1603	75.2860	-256.16	-285.66	157.768	81.5415	72.7953
4.239345	1422.10	1077.75	1060.05	1139.35	1065.17	161.526	600.308	599.644	14.0550	75.2725	-256.88	-286.09	157.799	79.7615	72.6190
4.256568	1422.10	1077.90	1059.95	1139.35	1065.79	170.439	600.624	599.747	14.0550	75.2725	-257.21	-286.09	158.263	82.0781	72.5783
4.273343	1422.26	1077.75	1060.05	1139.35	1067.42	171.075	599.887	599.023	14.0550	75.2184	-256.68	-286.67	158.263	81.1388	72.5783
4.289572	1422.73	1077.75	1059.95	1139.35	1068.44	172.349	599.466	598.507	14.0550	75.1643	-255.96	-286.38	158.263	81.1724	72.6326
4.305775	1422.73	1077.59	1060.05	1139.35	1067.63	171.075	599.782	598.817	14.0550	75.1237	-255.38	-286.52	158.170	81.4072	72.6326
4.315553	1422.73	1078.21	1060.36	1139.35	1065.17	169.325	599.361	598.507	14.0550	75.0156	-254.33	-285.88	157.830	81.1724	72.6190
4.339008	1422.73	1077.90	1059.95	1138.74	1065.99	173.622	599.782	598.817	14.1603	74.9479	-254.07	-285.95	157.830	81.4408	72.4832
4.358484	1423.04	1077.90	1060.36	1138.53	1067.42	174.258	599.887	598.817	14.1603	74.8803	-257.21	-286.09	157.861	81.2730	72.3747
4.374990	1423.04	1077.90	1060.36	1138.53	1067.42	174.895	599.466	598.403	14.0550	74.8397	-259.18	-286.17	157.398	80.6016	72.4290
4.391211	1422.88	1077.90	1060.16	1139.35	1067.42	171.871	599.782	598.507	14.0550	74.7856	-260.10	-286.09	157.768	79.6942	72.3611
4.407901	1422.73	1077.75	1060.05	1138.53	1066.60	172.508	599.782	598.817	14.0550	74.7856	-259.31	-286.09	158.540	81.3066	72.1982
4.424213	1422.26	1077.90	1059.95	1138.53	1064.15	166.141	600.203	599.127	14.0550	74.7315	-258.78	-286.17	158.263	80.8702	72.1982
4.440421	1422.26	1077.75	1059.95	1138.53	1063.33	167.892	599.887	598.817	14.1603	74.6774	-258.78	-286.09	158.294	80.9038	71.9811
4.457119	1422.10	1077.59	1060.05	1138.53	1067.42	176.168	599.887	598.920	14.0550	74.6368	-258.52	-286.38	158.664	81.4408	72.1575
4.473425	1422.73	1077.90	1059.95	1138.53	1068.85	173.144	600.730	599.747	14.0550	74.6233	-258.26	-288.70	158.571	81.7092	72.0354
4.489636	1422.88	1078.37	1060.36	1138.53	1064.15	167.892	601.046	600.057	13.7391	74.6774	-258.26	-285.95	158.756	81.9105	72.1439
4.505946	1423.19	1078.37	1060.46	1138.53	1061.90	169.325	600.098	599.230	14.0550	74.5692	-257.67	-286.17	158.263	81.5415	72.0897
4.522175	1423.04	1078.21	1060.46	1138.53	1065.79	168.688	600.098	599.127	14.0550	74.4473	-257.01	-286.45	158.263	80.8366	71.9267
4.545674	1422.41	1077.75	1060.36	1137.91	1064.35	160.412	600.203	599.644	14.0550	74.4067	-256.68	-286.45	158.046	80.0640	71.9404
4.563773	1422.26	1077.75	1060.36	1138.53	1061.90	158.979	600.624	599.644	14.4762	74.3527	-258.26	-286.17	157.923	79.8287	71.6552
4.579890	1422.73	1077.75	1060.05	1138.53	1064.15	162.162	600.203	599.230	14.0550	74.2443	-260.39	-286.17	158.756	81.1724	71.6144
4.596192	1422.73	1077.59	1060.05	1137.91	1067.42	165.505	599.993	598.817	14.0550	74.1766	-261.36	-283.53	159.127	81.6757	71.6687
4.613422	1422.41	1077.59	1059.95	1137.91	1068.04	165.345	600.203	598.920	14.0550	74.2579	-260.30	-286.17	158.756	81.9105	71.6687
4.629630	1422.73	1077.59	1059.95	1137.91	1064.35	150.502	599.993	598.920	14.0550	74.1902	-259.84	-286.17	158.294	81.2730	71.5464
4.646409	1422.26	1077.59	1059.64	1138.53	1064.15	155.318	599.361	598.403	14.0550	74.0819	-260.63	-286.17	159.250	81.5415	71.3970
4.662622	1422.26	1077.59	1059.54	1138.12	1064.97	155.159	599.466	598.507	13.9497	74.1360	-260.56	-286.38	159.127	81.3737	71.4921
4.678881	1422.26	1077.28	1059.54	1137.91	1064.35	153.886	600.624	599.644	14.0550	74.2037	-259.84	-286.17	158.756	80.6352	71.5872
4.695141	1422.73	1077.59	1060.05	1137.91	1064.15	153.249	601.046	600.161	14.0550	74.1495	-258.78	-286.45	158.294	80.0976	71.4378
4.711354	1422.73	1077.90	1060.05	1137.91	1064.35	158.979	601.046	600.057	13.9497	74.0142	-258.26	-286.17	158.016	80.6352	71.3970
4.728056	1422.88	1078.06	1060.05	1137.71	1067.42	159.775	600.203	599.334	14.0550	73.9329	-257.60	-286.67	158.880	80.6352	71.2883
4.752602	1422.73	1077.75	1059.64	1137.71	1065.79	162.958	599.782	598.610	13.7391	73.9194	-256.42	-286.67	158.571	80.7695	71.2747
4.771825	1422.73	1077.59	1059.64	1137.91	1065.79	172.349	599.466	598.507	13.9497	73.8246	-255.11	-286.67	158.664	81.1388	71.3291
4.788339	1422.88	1077.59	1059.85	1137.91	1065.79	175.532	599.361	598.300	13.8444	73.8110	-255.38	-286.17	158.386	82.2457	71.2204
4.804575	1422.88	1077.59	1059.85	1137.91	1065.79	178.078	599.887	598.817	14.0550	73.7027	-256.09	-286.45	157.892	82.1116	71.2747
4.820800	1422.73	1077.75	1060.05	1138.53	1065.79	179.352	600.203	599.230	14.0550	73.7162	-257.21	-286.38	157.768	81.8434	71.0573
4.837578	1422.73	1077.75	1059.95	1137.91	1065.79	173.622	599.782	598.817	14.0550	73.6485	-258.59	-286.67	158.633	81.9105	70.9485



## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	TFV1
PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	TFV1
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92
	59/157	60/160	61/161	62/168	63/169	57/153		
4.853809	1422.26	1077.59	1059.95	1137.71	1064.97	170.439	599.782	598.817
4.870999	1422.26	1077.59	1059.64	1137.91	1064.15	166.619	599.361	598.507
4.887301	1422.26	1077.44	1059.54	1137.71	1062.72	159.616	598.939	598.093
4.903524	1422.88	1077.13	1059.54	1137.71	1062.31	155.159	599.361	598.093
4.920213	1423.19	1077.59	1059.95	1137.71	1063.33	153.886	599.361	598.093
4.936528	1423.35	1078.21	1060.05	1137.91	1065.79	155.159	600.203	599.230
4.960913	1423.04	1078.37	1060.36	1137.71	1065.17	155.318	600.624	599.954
4.979652	1422.73	1078.37	1060.36	1137.71	1064.15	158.342	600.624	599.851
4.995722	1422.73	1078.37	1060.67	1137.91	1065.79	162.958	600.624	599.644
5.011927	1422.73	1078.37	1060.77	1137.71	1067.42	167.892	600.624	599.747
5.028700	1422.26	1078.21	1060.36	1137.71	1067.42	169.325	600.203	599.230
5.044909	1422.10	1078.21	1060.16	1137.71	1063.33	160.252	599.887	598.920
5.061131	1422.10	1078.21	1060.16	1137.71	1059.44	155.159	600.308	599.334
5.077427	1422.26	1078.37	1060.46	1137.71	1062.72	163.595	600.624	599.747
5.093649	1422.26	1078.37	1060.46	1137.71	1066.60	171.712	599.993	599.127
5.110324	1422.73	1078.37	1060.36	1137.71	1067.63	176.805	599.782	598.817
5.126636	1422.88	1078.21	1060.46	1137.71	1065.99	181.898	599.782	598.713
5.142851	1422.88	1078.37	1060.36	1137.71	1065.17	180.784	599.571	598.507
5.166717	1422.41	1078.37	1060.77	1137.71	1064.15	173.304	601.046	600.161
5.185480	1422.26	1078.99	1061.19	1137.71	1062.31	166.778	601.677	600.884
5.202139	1422.26	1078.99	1061.29	1137.71	1064.15	169.802	601.151	600.471
5.218454	1422.73	1079.45	1061.50	1137.71	1065.79	172.985	601.256	600.471
5.234663	1422.73	1079.45	1061.70	1137.71	1064.97	169.961	600.730	600.057
5.251365	1422.73	1079.45	1061.60	1137.71	1060.88	159.616	600.624	600.161
5.267674	1422.73	1079.45	1061.60	1137.71	1060.06	160.252	600.308	599.334
5.283871	1422.73	1078.83	1060.88	1137.71	1064.35	167.415	599.993	599.127
5.300184	1422.26	1078.83	1060.77	1137.71	1067.42	169.802	600.098	599.127
4.316396	1422.26	1078.83	1060.67	1137.71	1065.79	174.895	600.098	599.334
5.328607	1422.10	1078.52	1060.46	1136.88	1064.15	172.985	600.624	599.644
5.345384	1422.10	1078.52	1060.77	1137.71	1063.33	171.712	600.835	599.747
5.368802	1422.26	1078.83	1061.19	1137.71	1064.35	168.051	600.624	599.747
5.387771	1422.73	1078.83	1061.19	1137.71	1064.97	166.141	599.887	598.817
5.404084	1422.88	1078.83	1060.88	1137.71	1062.72	162.799	599.466	598.507
5.420303	1422.41	1078.52	1060.46	1136.88	1060.88	157.706	599.361	598.403
5.436982	1422.26	1078.37	1060.46	1137.71	1063.33	165.345	599.782	598.817
5.453298	1422.73	1078.83	1060.88	1137.71	1064.97	165.823	600.203	599.127
5.470509	1422.73	1078.99	1061.19	1137.71	1064.15	166.778	600.098	599.230
5.487291	1422.26	1078.99	1060.88	1137.71	1064.15	167.892	599.361	598.403
5.503529	1422.10	1078.83	1060.46	1137.71	1066.60	171.075	598.518	597.990
5.519742	1422.10	1078.21	1060.16	1136.27	1064.15	162.799	598.518	597.990
5.536519	1422.10	1078.21	1060.05	1136.27	1060.06	161.526	599.361	598.403
5.553745	1422.10	1078.37	1060.36	1136.47	1060.88	164.072	600.308	599.644
5.576964	1422.57	1078.52	1060.77	1136.68	1064.15	165.505	600.203	598.920
5.595307	1423.04	1078.99	1061.29	1136.27	1065.79	170.757	601.046	600.161
5.611520	1423.04	1079.45	1061.70	1136.27	1065.17	167.096	600.624	599.747
5.628299	1422.73	1079.45	1061.29	1136.47	1062.51	159.616	599.782	598.817
5.644522	1423.04	1078.83	1060.88	1137.71	1059.44	155.637	600.203	598.817
5.661744	1422.26	1078.83	1060.88	1136.27	1058.42	152.613	600.098	599.230
5.678519	1422.26	1078.99	1061.19	1136.27	1061.90	162.799	600.624	599.644

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2		PFJ		PH20-J		PC-1		PC-2		POJI		TBL		TAQ		TFV1	
PARAMETER	PFVD		PSIA		PGH20T		PH20-OUT		PC-2		TFJ		TOJ		TIN		TFV1	
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169	57/153			
5.694746	1422.41	1079.45	1061.50	1136.27	1068.24	170.598	601.467	600.471	13.5285	71.3151	-254.07	-285.81	158.911	82.3463	68.5523			
5.710892	1422.26	1079.45	1061.70	1136.27	1068.85	175.054	601.151	600.471	13.6338	71.2064	-254.59	-286.81	158.263	81.3066	68.4432			
5.727188	1422.73	1079.45	1061.70	1136.27	1064.35	174.258	600.624	599.644	13.5285	70.8939	-254.85	-287.03	157.892	80.6352	68.4432			
5.743387	1423.04	1079.45	1061.60	1136.27	1061.90	171.712	599.571	598.507	13.5285	70.9346	-255.05	-286.81	157.799	80.6016	68.2386			
5.760090	1422.73	1079.45	1061.29	1136.27	1061.08	174.895	599.361	598.300	13.5285	71.0026	-254.53	-286.81	158.510	80.6352	68.4024			
5.783616	1422.73	1080.23	1061.60	1136.27	1064.15	172.030	601.046	600.057	13.5285	70.9346	-253.55	-286.81	157.521	80.0640	68.2933			
5.802438	1422.73	1093.11	1056.24	1136.27	1062.72	164.072	581.565	581.138	13.5285	71.1521	-254.59	-285.95	158.263	80.7360	68.1296			
5.818913	1437.66	1222.88	949.788	1136.06	1061.08	157.069	402.660	407.035	13.6338	69.6697	-255.57	-270.10	159.774	82.5138	68.2933			
5.835144	1478.11	1413.03	627.548	1136.27	1061.08	161.526	224.913	229.521	13.5285	59.2167	-255.90	-246.28	158.633	81.4408	70.7310			
5.851360	1503.62	1510.04	322.517	1136.47	1061.90	155.955	147.833	149.294	13.5285	41.8741	-256.55	-226.74	159.158	80.8366	73.5004			
5.868116	1511.71	1532.08	158.357	1136.27	1062.72	158.979	123.824	123.654	13.4232	25.7110	-256.16	-211.22	158.880	81.1388	75.2874			
5.884339	1510.00	1524.63	108.687	1136.06	1065.99	164.231	110.872	110.110	13.5285	16.0728	-256.09	-196.92	158.510	81.9105	75.8957			
5.901026	1507.51	1515.94	95.7023	1136.06	1066.60	160.252	84.2312	83.8503	13.6338	11.4993	-257.14	-166.32	157.645	81.5751	76.0038			
5.917341	1506.89	1511.91	83.8514	1136.06	1064.15	154.682	54.7471	54.5920	13.5285	10.2323	-259.84	-130.54	156.285	81.0381	76.0984			
5.933565	1506.11	1510.97	69.3213	1136.06	1063.54	160.252	35.6877	35.5689	13.5285	11.0480	-264.07	-105.50	154.799	81.2730	75.9363			
5.950269	1506.11	1511.13	56.1307	1136.06	1067.63	164.072	26.1054	25.4371	13.5285	13.9989	-265.34	-89.217	152.317	80.9373	75.9498			
5.966570	1505.64	1511.13	46.8562	1136.27	1068.85	165.505	21.0509	20.1644	13.5285	17.6371	-264.01	-78.459	148.708	80.3328	76.0579			
5.991162	1505.33	1511.29	38.1999	1136.06	1061.90	150.066	16.8389	15.9256	13.4232	23.1056	-266.14	-68.020	144.084	80.9038	76.1389			
6.009205	1505.33	1511.60	34.4901	1136.06	1060.88	150.544	14.8382	14.3748	13.4232	27.1023	-268.07	-63.686	139.060	81.8434	75.9228			
6.025330	1505.33	1510.97	31.7077	1136.06	1061.90	149.429	13.9958	13.8578	13.5285	30.4442	-266.74	-60.936	135.022	81.4072	75.8416			
6.042014	1505.02	1510.97	29.6467	1136.06	1062.31	152.135	13.7852	13.7544	13.5285	33.4830	-264.60	-58.441	130.998	81.1388	75.9498			
6.058326	1505.33	1510.51	28.2040	1136.06	1067.42	161.526	13.7852	13.7544	13.5285	36.0015	-262.41	-56.078	126.798	80.9038	75.9228			
6.074521	1505.18	1510.35	27.0704	1136.06	1068.85	164.709	13.5746	13.7544	13.5285	38.2001	-260.56	-55.021	123.092	81.4408	75.9363			
6.092214	1505.02	1510.35	26.3490	1136.06	1067.42	164.709	13.6799	13.7544	13.4232	40.0818	-259.31	-53.561	120.591	82.4803	76.0984			
6.108524	1504.87	1510.35	26.1429	1136.06	1061.90	157.706	13.6799	13.7544	13.5285	41.6486	-258.52	-52.023	117.021	81.6757	76.0443			
6.124720	1504.87	1510.04	25.7307	1136.06	1057.60	151.339	13.7852	13.9612	13.5285	43.0010	-257.47	-50.004	113.275	80.9038	76.1794			
6.141023	1504.87	1510.04	25.7307	1136.06	1059.44	153.886	13.7852	13.8578	13.5285	44.1263	-256.16	-47.509	110.195	80.7695	76.1119			
6.157256	1504.40	1509.73	25.4216	1136.06	1065.99	157.706	13.7852	14.0646	13.5285	45.1938	-255.64	-45.224	108.375	81.7428	76.1389			
6.173452	1504.40	1509.73	25.4216	1136.06	1066.60	156.592	13.7852	13.7544	13.5285	46.0777	-254.59	-42.627	106.355	81.5415	76.0984			
6.199205	1504.24	1509.27	25.7307	1136.06	1061.90	153.408	13.7852	13.7544	13.5285	47.3806	-253.55	-39.167	102.368	80.7360	76.2200			
6.215491	1504.24	1509.42	25.3185	1136.06	1062.51	151.339	13.7852	13.7544	13.5285	48.1640	-252.77	-36.949	101.319	82.3798	76.3146			
6.232195	1504.24	1509.27	25.7307	1136.06	1065.99	155.478	13.8905	13.8578	13.3179	48.8907	-251.74	-34.543	99.9733	83.4517	76.2200			
6.248500	1504.24	1509.27	25.7307	1136.06	1067.63	152.613	13.7852	13.9612	13.4232	49.5052	-250.45	-32.812	98.0003	82.7484	76.2606			
6.264720	1503.93	1509.11	25.7307	1136.06	1064.35	147.520	13.7852	13.8578	13.3179	49.9657	-249.67	-30.813	96.4186	82.4803	76.0579			
6.281027	1503.78	1509.11	25.7307	1136.06	1061.06	142.426	13.8905	13.7544	13.3179	50.5235	-248.65	-29.991	95.6267	81.5079	76.1254			
6.298249	1503.62	1509.11	25.7307	1136.06	1060.88	145.610	13.7852	13.9612	13.3179	51.1228	-247.37	-26.872	94.7350	81.2730	76.2200			
5.314463	1503.62	1509.11	25.7307	1136.06	1064.15	148.793	13.7852	14.0646	13.3179	51.5128	-245.84	-25.358	93.1142	80.7695	76.1119			
6.325229	1503.62	1508.65	25.8338	1136.06	1065.99	157.069	13.7852	13.9612	13.3179	51.9025	-244.82	-23.924	92.2200	81.2730	76.0443			
6.341448	1503.62	1508.65	26.1429	1136.06	1065.99	153.886	13.8905	13.9612	13.4232	52.2504	-243.81	-22.301	91.6564	81.2730	76.3146			
6.358143	1503.31	1508.65	26.1429	1136.06	1064.97	155.318	13.9958	14.0646	13.4232	52.6398	-243.06	-21.068	90.4617	81.8434	76.0579			
6.374451	1503.62	1508.65	26.1429	1136.06	1064.15	151.658	13.7852	14.1680	13.4232	52.9733	-242.05	-19.645	89.6642	81.6757	76.1523			
6.398821	1503.31	1508.49	26.1429	1136.06	1060.06	147.679	13.8905	14.0646	13.3179	53.4041	-241.05	-17.805	89.1323	81.4408	76.3685			
6.416914	1503.31	1508.49	26.1429	1136.06	1062.31	150.066	13.7852	14.0646	13.3179	53.7374	-240.23	-16.391	88.3670	81.1388	76.2606			
6.433159	1503.15	1508.49	26.1429	1136.06	1065.99	155.159	13.9958	14.0646	13.3179	53.9595	-239.30	-15.170	87.9341	80.7695	76.1389			
6.449384	1503.15	1508.49	26.1429	1136.06	1064.97	148.793	13.7852	14.0646	13.3179	54.2787	-238.80	-14.904	87.9341	81.0381	76.0443			
6.466164	1503.00	1508.49	26.1429	1136.06	1062.72	155.796	13.9958	14.0646	13.3179	54.6810	-238.06	-12.737	88.0674	81.5751	76.3010			
6.482392	1503.15	1508.34	25.9368	1136.06	1064.15	161.526	13.9958	14.0646	13.3179	54.8474	-237.56	-11.563	87.4011	81.1388	76.3146			
6.498596	1503.15	1508.18	26.0399	1136.06	1065.17	162.162	13.7852	14.0646	13.3179	55.0137	-237.50	-10.504	86.7342	80.6352	76.3685			
6.515378	1503.00	1508.03	26.1429	1136.06	1065.17	161.685	13.9958	14.0646	13.3179	55.1938	-237.56	-9.4100	86.1002	80.2320	76.2740			

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2		PFJ		PH20-J		PC-1		PC-2		POJI		TBL		TAO		TIN		TFV1	
PARAMETER	PFV-2		PFJ		PH20-J		PC-1		PC-2		POJI		TBL		TAO		TIN		TFV1	
UNITS	PSIA	PFVD	PSIA	PGH20T	PSIA	PH20-OUT	PSIA	PSIA	PSIA	PSIA	PSIA	TFJ	DEG F	DEG F	TOJ	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	59/157	60/160	61/161	62/168	63/169	57/153					
6.531602	1503.00	1508.03	26.2460	1136.06	1064.15	160.412	13.9958	14.0646	13.5285	55.4017	-236.82	-8.3931	85.9333	79.6606	76.0984					
6.548888	1503.00	1508.03	26.2460	1136.06	1063.33	160.252	13.9958	14.0646	13.3179	55.5264	-236.32	-7.6035	85.9333	79.7278	76.2064					
6.565113	1502.84	1507.87	26.2460	1136.06	1061.90	160.571	13.9958	14.0646	13.3179	55.7480	-235.77	-5.9903	86.2004	80.0976	76.0443					
6.581322	1502.84	1507.87	26.2460	1136.06	1063.33	159.138	13.9958	14.0646	13.5285	55.9696	-235.09	-5.5036	86.2004	80.3665	76.2064					
6.605391	1502.84	1507.87	26.2460	1136.06	1067.63	159.616	13.7852	14.1680	13.3179	56.2465	-234.60	-4.3445	86.2338	81.1388	76.3281					
6.623878	1503.00	1508.03	26.4521	1136.06	1062.72	149.429	13.7852	14.0646	13.4232	56.4125	-233.87	-3.4115	85.4324	80.7695	76.2740					
6.640095	1502.84	1508.03	26.4521	1136.06	1057.60	143.700	13.9958	14.0646	13.4232	56.6339	-233.56	-2.6662	86.0001	80.5009	76.2606					
6.656390	1502.84	1507.87	26.4521	1136.06	1057.60	144.336	13.9958	14.1680	13.3179	56.7860	-233.25	-2.2940	85.4324	80.9709	76.3281					
6.672608	1503.00	1507.87	26.3490	1136.06	1061.90	143.700	13.9958	14.1680	13.4232	56.9658	-233.07	-1.3644	85.3990	80.6016	76.1659					
6.689286	1502.84	1507.87	26.4521	1136.06	1066.60	150.703	13.9958	14.0646	13.2125	57.2977	-232.40	-5.1050	85.1317	81.2730	76.3146					
6.705509	1502.84	1507.87	26.4521	1136.06	1060.85	157.706	13.9958	14.1680	13.3179	57.2977	-232.40	2.68036	85.3990	81.5415	76.2740					
6.721800	1502.84	1507.87	26.4521	1136.06	1068.85	160.889	13.9958	14.1680	13.4232	57.3806	-231.91	1.15652	84.7640	81.1388	76.3685					
6.738112	1503.00	1507.87	26.4521	1136.06	1065.99	158.979	13.9958	14.1680	13.4232	57.3529	-231.42	2.19142	85.1317	80.4673	76.3820					
6.754337	1502.84	1507.87	26.4521	1136.06	1061.90	156.433	13.9958	14.1680	13.3179	57.5049	-231.18	2.63441	84.8644	80.3665	76.3146					
6.770535	1502.84	1507.87	26.4521	1136.06	1060.88	157.069	13.9958	14.1680	13.3179	57.6155	-230.88	3.04021	83.9279	80.3665	76.2740					
6.787316	1502.69	1507.87	26.4521	1136.06	1062.31	157.069	13.7852	14.1680	13.3179	57.7260	-230.45	3.99828	84.0616	80.0976	76.2200					
6.810794	1502.69	1507.87	26.6582	1136.06	1063.13	151.499	14.3117	14.1680	13.3179	57.9471	-230.21	4.80705	83.2918	79.5261	76.3281					
6.830239	1502.53	1507.40	26.9674	1136.06	1062.31	148.156	13.9958	14.1680	13.3179	58.1680	-229.91	5.57965	83.0908	79.4252	76.3146					
6.847015	1502.84	1507.56	26.6582	1135.44	1062.51	151.499	14.3117	14.1680	13.3179	58.2646	-229.48	5.35922	83.7939	80.0640	76.2740					
6.863228	1503.00	1507.25	26.6582	1136.06	1064.15	153.090	14.3117	14.1680	13.3179	58.4027	-229.00	6.93736	83.6267	79.7615	76.3146					
6.880924	1502.53	1507.25	26.6582	1135.44	1065.79	159.616	13.9958	14.1680	13.3179	58.4579	-229.00	7.23056	83.5262	79.5261	76.2606					
6.897219	1502.69	1507.25	26.6582	1136.06	1065.79	153.249	14.2064	14.1680	13.4232	58.7753	-228.70	7.63353	83.9279	79.8207	76.5306					
6.913426	1502.69	1507.40	26.6582	1136.06	1062.72	148.952	14.4170	14.1680	13.2125	58.8442	-228.52	8.10945	82.7559	79.6606	76.4226					
6.930116	1502.53	1507.25	26.7612	1136.06	1061.08	145.928	13.9958	14.1680	13.3179	58.8857	-228.40	8.25583	83.5262	80.2656	76.4766					
6.946421	1502.53	1507.25	26.9674	1136.06	1064.97	157.706	14.1011	14.1680	13.3179	58.8442	-228.03	9.24312	83.2583	80.0640	76.4766					
6.962621	1502.69	1507.25	26.9674	1136.06	1067.63	162.799	14.3117	14.1680	13.2125	59.0511	-227.97	9.82761	82.8563	79.7615	76.4226					
6.978921	1502.53	1507.25	26.9674	1135.44	1066.60	162.958	14.3117	14.1680	13.3179	59.1063	-227.79	10.0832	82.5212	79.5261	76.4901					
6.995142	1502.53	1507.40	27.0704	1136.06	1064.35	166.619	13.9958	14.1680	13.4232	59.1477	-227.55	10.5941	82.4877	79.2906	76.4901					
7.019152	1502.53	1507.25	27.0704	1136.06	1064.35	164.709	13.9958	14.1680	13.3179	59.3270	-227.49	9.97363	82.3201	79.1225	76.4766					
7.037651	1502.53	1507.25	27.0704	1136.06	1065.79	165.982	14.3117	14.1680	13.3179	59.3959	-227.07	11.9064	82.1859	79.1561	76.4901					
7.053868	1502.69	1507.40	27.0704	1135.44	1064.15	164.072	14.3117	14.1680	13.2125	59.5475	-226.83	12.3070	82.5212	79.4252	76.5981					
7.070544	1502.53	1507.25	26.9674	1136.06	1061.69	157.228	14.1011	14.1680	13.3179	59.6577	-226.83	12.7802	82.9904	80.0640	76.5441					
7.086856	1502.53	1507.40	26.9674	1136.06	1062.72	157.865	14.3117	14.1680	13.3179	59.7130	-226.59	13.1805	83.2583	80.6016	76.5711					
7.103072	1502.53	1507.25	27.0704	1136.06	1064.15	153.408	14.3117	14.1680	13.3179	59.7680	-226.35	14.0895	82.8898	79.9632	76.5035					
7.119764	1502.38	1507.25	27.0704	1136.06	1061.69	148.952	13.9958	14.1680	13.3179	59.9333	-225.87	13.9442	83.2583	79.9632	76.3956					
7.136064	1502.53	1507.25	26.9674	1135.44	1061.69	146.246	13.7852	14.1680	13.3179	59.9885	-226.11	14.3803	83.5596	80.0640	76.4901					
7.152284	1502.53	1507.25	26.9674	1136.06	1064.15	142.586	14.3117	14.1680	13.3179	60.0987	-225.63	14.7073	82.9904	79.7615	76.4766					
7.169048	1502.53	1507.25	27.0704	1136.06	1064.15	143.859	14.1011	14.1680	13.2125	60.1537	-225.51	14.9616	82.3201	79.2906	76.5306					
7.185272	1502.53	1507.25	27.0704	1136.06	1063.33	145.610	13.9958	14.1680	13.2125	60.2639	-225.15	15.5063	82.5882	79.5598	76.4226					
7.201486	1502.53	1507.25	27.0704	1136.06	1063.13	144.973	14.3117	14.1680	13.3179	60.2777	-224.43	15.7967	82.4541	79.5261	76.4766					
7.225011	1502.53	1507.25	27.3796	1135.44	1063.33	147.520	14.3117	14.1680	13.3179	60.4291	-224.85	16.2684	81.9176	79.1225	76.4766					
7.243705	1502.53	1507.25	27.3796	1135.44	1064.15	151.339	14.1011	14.1680	13.2125	60.5944	-224.61	16.5950	82.1859	79.5598	76.5711					
7.260231	1502.53	1507.25	27.3796	1135.44	1065.99	158.979	13.9958	14.1680	13.3179	60.5393	-224.43	17.3929	82.1859	79.6942	76.5441					
7.276546	1502.53	1507.25	27.3796	1136.06	1066.81	159.138	14.3117	14.1680	13.2125	60.7045	-224.19	17.4292	82.4877	79.9296	76.6386					
7.292758	1502.53	1507.40	27.3796	1135.44	1064.76	152.772	14.3117	14.1680	13.3179	60.8146	-224.19	17.6830	82.7223	79.6942	76.5441					
7.309065	1502.53	1507.25	27.3796	1136.06	1060.88	146.405	14.3117	14.1680	13.3179	60.9109	-224.07	19.0240	82.7559	80.0640	76.4766					
7.322274	1502.53	1507.40	27.3796	1136.06	1058.63	144.495	14.3117	14.1680	13.2125	61.0347	-223.72	18.2267	82.4877	80.0976	76.5577					
7.339045	1502.53	1507.25	27.3796	1136.06	1061.69	146.246	13.9958	14.1680	13.3179	61.0347	-223.66	18.5892	82.3201	79.8287	76.6386					
7.357250	1502.53	1507.25	27.3796	1136.06	1064.35	147.520	14.3117	14.1680	13.3179	61.0485	-223.54	18.7341	82.3201	79.5261	76.6386					

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	TFV1
PARAMETER	PFVD	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN	
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92
	35/ 93	59/157	60/160	61/161	62/168	63/169	57/153	
7.373485	1502.53	1507.40	27.3796	1136.06	1063.33	146.246	13.9958	14.1680
7.390175	1502.38	1507.40	27.3796	1136.06	1061.69	146.883	13.9958	14.2714
7.406475	1502.38	1507.25	27.3796	1136.06	1064.15	152.613	14.3117	14.1680
7.429945	1502.38	1506.94	26.9674	1135.44	1064.15	148.156	13.9958	14.1680
7.448141	1502.53	1507.25	27.3796	1135.24	1064.15	158.979	13.9958	14.1680
7.464275	1502.53	1507.25	27.3796	1135.24	1066.81	156.433	14.3117	14.1680
7.480487	1502.53	1507.25	27.3796	1136.06	1065.38	154.841	14.1011	14.3748
7.497256	1502.38	1507.25	27.3796	1135.65	1062.51	154.523	14.1011	14.3748
7.513474	1502.53	1506.78	27.3796	1136.06	1064.15	159.616	14.1011	14.2714
7.530162	1502.38	1507.25	27.3796	1135.44	1064.97	157.387	13.9958	14.1680
7.546477	1502.53	1506.94	27.0704	1135.24	1065.17	155.159	14.3117	14.1680
7.562687	1502.53	1507.25	27.3796	1135.44	1061.69	156.433	14.3117	14.1680
7.579370	1502.38	1507.25	27.3796	1135.44	1061.69	152.613	14.4170	14.1680
7.595687	1502.53	1507.25	27.3796	1135.24	1061.90	154.523	14.1011	14.1680
7.611906	1502.53	1507.25	27.3796	1136.06	1064.15	155.796	14.3117	14.3748
7.636731	1502.38	1507.25	27.3796	1136.06	1064.15	150.066	14.1011	14.1680
7.653465	1502.69	1507.25	27.3796	1135.24	1062.31	147.520	14.3117	14.2714
7.670145	1502.38	1507.25	27.3796	1135.24	1061.90	146.405	14.3117	14.1680
7.686457	1502.53	1507.25	27.3796	1135.24	1061.90	147.679	14.3117	14.3748
7.702687	1502.53	1507.25	27.3796	1135.24	1062.51	146.246	13.9958	14.2714
7.719361	1502.38	1507.25	27.3796	1135.24	1064.15	147.520	14.2064	14.3748
7.736676	1502.38	1507.25	27.3796	1135.24	1064.15	148.793	13.9958	14.1680
7.752892	1502.53	1507.25	27.3796	1135.24	1064.15	146.246	13.9958	14.1680
7.769188	1502.69	1507.25	27.3796	1135.24	1062.31	153.249	14.3117	14.4781
7.785418	1502.53	1507.25	27.3796	1135.24	1064.15	160.412	14.3117	14.1680
7.801632	1502.53	1507.25	27.4826	1135.24	1064.97	161.526	14.2064	14.1680
7.818412	1502.38	1507.25	27.4826	1135.24	1061.69	155.159	14.3117	14.3748
7.842033	1502.53	1507.40	27.4826	1135.44	1062.31	155.318	14.3117	14.1680
7.860873	1502.53	1507.40	27.4826	1135.24	1064.35	152.931	14.3117	14.1680
7.877121	1502.84	1507.40	27.4826	1135.24	1064.15	153.886	14.3117	14.1680
7.893332	1502.69	1507.40	27.4826	1135.24	1063.33	156.433	14.2064	14.1680
7.910011	1502.53	1507.25	27.4826	1135.44	1061.90	160.571	14.1011	14.1680
7.926312	1502.53	1507.40	27.4826	1136.06	1062.72	160.252	14.3117	14.1680
7.942521	1502.69	1507.40	27.4826	1135.44	1065.17	161.844	14.2064	14.1680
7.959297	1502.53	1507.40	27.4826	1135.24	1065.79	158.342	14.2064	14.1680
7.975523	1502.69	1507.40	27.4826	1134.02	1062.72	158.979	14.1011	14.1680
7.991728	1502.53	1507.40	27.7918	1135.24	1062.31	160.809	14.3117	14.1680
8.008505	1502.69	1507.40	27.5857	1135.24	1064.15	160.252	14.3117	14.1680
8.024737	1502.69	1507.40	27.7918	1135.44	1063.33	157.865	14.3117	14.3748
8.049256	1502.53	1507.25	27.4826	1135.24	1062.51	160.252	14.3117	14.3748
8.067287	1502.69	1507.87	27.4826	1135.24	1064.15	160.889	14.3117	14.2714
8.083498	1502.53	1507.40	27.4826	1135.24	1062.72	152.772	14.3117	14.1680
8.100272	1502.53	1507.25	27.4826	1135.44	1060.06	147.520	14.3117	14.3748
8.116495	1502.69	1507.25	27.4826	1135.44	1059.44	149.429	13.9958	14.3748
8.132710	1502.53	1507.25	27.4826	1135.24	1062.31	153.090	14.3117	14.3748
8.149486	1502.53	1507.25	27.4826	1135.24	1065.79	157.706	14.3117	14.2714
8.165694	1502.69	1507.25	27.4826	1135.24	1067.42	163.436	14.3117	14.2714
8.181914	1502.69	1507.25	27.4826	1135.24	1066.60	157.228	14.1011	14.1680
8.198209	1502.53	1507.25	27.4826	1135.24	1062.31	148.793	14.1011	14.3748

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2	PFJ	PH20-J	PC-1	POJI	TBL	TAO	TFV1
PARAMETER	PFV-2	PFJ	PGH20T	PH20-OUT	PC-2	TFJ	TOJ	TIN
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92
8.214426	1502.69	1507.25	27.5857	1135.24	1060.88	145.610	14.3117	14.3748
8.231121	1502.69	1507.25	27.6887	1135.24	1061.90	143.859	14.3117	14.1680
8.254602	1502.53	1507.40	27.5857	1135.24	1061.90	146.246	13.9958	14.2714
8.273715	1502.53	1507.56	27.4826	1135.24	1066.40	157.706	14.3117	14.3748
8.290322	1503.00	1507.87	27.3796	1135.24	1068.44	158.183	14.3117	14.3748
8.306553	1502.69	1507.56	27.4826	1135.24	1064.15	153.886	14.3117	14.3748
8.318762	1502.69	1507.56	27.4826	1135.24	1058.63	150.703	14.3117	14.3748
8.335540	1502.69	1507.87	27.4826	1135.24	1058.63	149.270	14.3117	14.3748
8.351765	1502.53	1507.56	27.4826	1135.24	1064.97	154.523	14.3117	14.3748
8.367968	1502.84	1507.87	27.4826	1135.24	1068.44	157.228	14.2064	14.3748
8.384271	1502.84	1507.40	27.7918	1134.82	1064.35	148.156	14.1011	14.1680
8.400492	1502.53	1507.40	27.7918	1134.82	1059.44	150.066	14.3117	14.1680
8.417188	1502.53	1507.56	27.4826	1135.24	1062.31	160.252	14.3117	14.1680
8.433487	1502.53	1507.56	27.4826	1134.82	1067.42	161.526	14.3117	14.1680
8.457098	1502.53	1507.56	27.7918	1135.24	1065.79	153.886	14.3117	14.1680
8.475735	1502.53	1507.56	27.4826	1134.41	1058.63	143.063	14.3117	14.1680
8.491796	1503.00	1507.40	27.7918	1135.24	1056.78	141.790	14.1011	14.1680
8.508019	1502.53	1507.40	27.7918	1134.62	1061.08	148.952	14.1011	14.1680
8.524321	1503.00	1507.40	27.7918	1134.62	1065.99	154.682	14.3117	14.1680
8.540604	1502.69	1507.40	27.8948	1134.62	1067.42	156.433	14.1011	14.1680
8.557301	1502.53	1507.40	27.7918	1134.82	1064.15	152.613	14.3117	14.3748
8.573608	1502.84	1507.56	27.4826	1134.82	1061.08	148.315	14.3117	14.1680
8.589825	1502.84	1507.87	27.5857	1134.41	1060.06	147.520	14.3117	14.1680
8.606121	1502.69	1507.56	27.4826	1134.82	1064.15	156.433	14.3117	14.1680
8.622354	1502.69	1507.56	27.6887	1135.03	1067.63	159.457	14.1011	14.1680
8.638562	1502.69	1507.87	27.7918	1135.03	1064.97	156.751	14.2064	14.1680
8.662112	1502.69	1507.25	27.7918	1135.24	1061.90	154.045	14.3117	14.1680
8.680308	1502.69	1507.40	27.8948	1134.62	1062.31	152.613	14.3117	14.3748
8.696797	1502.84	1507.40	27.8948	1134.62	1061.49	151.339	14.2064	14.3748
8.713117	1502.84	1507.40	27.8948	1134.62	1061.90	155.159	14.3117	14.1680
8.729322	1502.84	1507.25	27.7918	1135.24	1064.15	159.457	14.2064	14.3748
8.746101	1502.69	1507.40	27.3796	1135.24	1064.35	156.751	13.9958	14.1680
8.762317	1502.84	1507.25	26.4521	1135.24	1063.33	153.249	14.3117	14.3748
8.778530	1502.53	1507.25	23.6697	1134.82	1061.69	150.225	14.3117	14.3748
8.795315	1502.53	1507.25	20.3721	1134.62	1058.63	145.769	14.4170	14.4781
8.811536	1502.69	1507.25	17.8989	1134.62	1059.85	150.862	14.3117	14.4781
8.827880	1502.69	1507.25	16.2501	1134.62	1064.35	157.706	14.4170	14.4781
8.844050	1502.69	1507.25	15.1165	1134.62	1067.42	160.252	14.4170	14.4781
8.869979	1502.53	1507.25	14.7043	1134.62	1065.17	158.342	14.5223	14.5815
8.887350	1502.53	1507.40	14.6012	1134.41	1061.69	147.520	14.4170	14.5815
8.903667	1502.53	1507.40	14.6012	1135.24	1059.24	143.859	14.5223	14.4781
8.919871	1502.69	1507.40	14.6012	1134.82	1062.72	150.225	14.4170	14.4781
8.936180	1502.53	1507.40	14.6012	1134.62	1065.17	155.955	14.5223	14.5815
8.952410	1502.53	1507.25	14.4982	1134.62	1064.15	153.886	14.4170	14.5815
8.968615	1502.53	1507.25	14.2921	1134.82	1061.90	153.886	14.4170	14.5815
8.985399	1502.53	1507.40	14.6012	1134.62	1061.90	149.589	14.3117	14.5815
9.001621	1502.53	1507.25	14.2921	1135.24	1064.15	155.955	14.3117	14.5815
9.017883	1502.53	1507.25	14.2921	1135.24	1064.97	155.955	14.4170	14.5815
9.034121	1502.38	1507.25	14.2921	1134.62	1063.33	152.931	14.3117	14.4781

## TRANS-REGEN ENGINE TEST

TEST NUMBER TRANS-REGEN RUN 104

CALIBRATION PERFORMED 09-01-78 13:24:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 1 FILE NO. 77 LU 14 FROM 368/ 0 TO 390/95 FILE STARTING T.O.D. 13:38: 4.501460 T.C.V. ON T.O.D. 13:38: 4.686351

PARAMETER	PFV-2	PFJ	PH20-J	PC-1	PC-2	POJI	TBL	TAO	TFV1
PARAMETER	PFV-2	PFV-2	PFV-2	PFV-2	PFV-2	PFV-2	PFV-2	PFV-2	PFV-2
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	21/ 57	22/ 60	23/ 61	28/ 76	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93
9.050353	1502.38	1507.25	14.2921	1134.62	1062.31	157.069	14.3117	14.5815	12.7913
9.073189	1502.38	1507.25	14.4982	1134.41	1064.97	159.775	14.3117	14.4781	12.7913
9.089845	1502.53	1507.25	14.2921	1134.62	1061.69	152.135	14.4170	14.5815	12.7913
9.108141	1502.38	1507.25	14.2921	1134.62	1057.81	148.952	14.3117	14.4781	12.7913
9.124444	1502.38	1507.25	14.2921	1134.41	1061.08	156.433	14.4170	14.4781	12.4754
9.140664	1502.38	1507.09	14.1890	1134.62	1064.97	161.526	14.4170	14.4781	12.4754
9.157344	1502.38	1506.78	14.2921	1134.41	1064.97	159.138	14.3117	14.4781	12.4754
9.173654	1502.38	1507.25	14.2921	1134.41	1061.69	151.499	14.4170	14.4781	12.4754
9.189873	1502.38	1506.78	14.2921	1134.62	1062.31	153.886	14.5223	14.4781	12.4754
9.205951	1502.38	1506.94	14.1890	1134.62	1064.97	157.228	14.3117	14.4781	12.4754
9.215127	1502.38	1506.78	14.2921	1134.41	1065.79	158.979	14.3117	14.4781	12.4754

END FILE

APPENDIX B

TRANS-REGEN TEST DATA - FIRST SERIES





## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#105 CALIBRATION PERFORMED 09-22-78 08:06:46 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 29 LU 15 FROM 300/ 0 TO 308/95 FILE STARTING T.O.D. 9:13:51.325615 T.C.V. ON T.O.D. 9:13:51.509430

PARAMETER	WL02-1		WH20P-1		WH20C-1		WH20C-2		TOFM		POV		F-A		F-B		FCALB 31941B		PFV-2
PARAMETER	WL02-2		WH20P-2		WH20C-2		PGOT						F-A				FCALA 31941A		
UNITS	LB-W		LB-W		LB-W		PSIA		DEG F		PSIA		LBS		LBS		LBS		PSIA
NEFF/ADC	4/ 12		5/ 13		6/ 16		7/ 17		8/ 24		9/ 25		10/ 28		11/ 33		12/ 33		13/ 33
-183815	2.90606		2.89819		13.4419		13.6167		11.1034		10.9495		-292.73		855.063		815.566		65.1310
-102338	2.91089		2.91543		13.5937		13.6289		11.0587		10.9451		-292.60		854.140		812.795		65.1310
-018923	2.54187		2.52642		13.4446		13.6289		11.0810		10.9495		-292.73		854.140		890.676		66.3589
.073853	.003143		.274672		13.3572		13.6324		11.0810		10.9437		-293.24		856.294		871.283		67.5869
.157294	.223404		.301994		13.4110		13.6429		11.0810		10.9495		-293.14		858.140		844.963		62.4705
.250160	.155817		.295163		13.3962		13.6412		11.1145		10.9554		-293.24		859.986		839.422		61.8566
.330687	.183576		.244749		13.3868		13.6254		11.0880		10.9568		-293.24		860.601		869.590		64.5171
.412696	.101808		.217427		13.3438		13.6272		11.0922		10.9670		-293.49		861.217		851.120		66.7682
.502798	.071333		.122127		13.3585		13.6272		11.0713		10.9554		-293.46		861.986		851.120		64.9264
.584770	2.31920		2.28476		13.4526		13.6342		11.0755		10.9393		-293.75		861.524		758.771		124.685
.676790	4.51638		4.53163		13.4338		13.6167		11.1034		10.9612		-293.65		859.063		803.406		1387.81
.758835	3.41145		3.43161		13.6126		13.6324		11.1396		11.0064		-293.84		857.524		797.712		1459.23
.849437	3.36287		3.37339		13.4661		13.6272		11.1592		11.0283		-294.23		856.294		798.173		1467.21
.933232	3.34930		3.35518		13.3518		13.6289		11.1703		11.0429		-294.13		855.678		796.942		1466.39
1.014660	3.34205		3.35810		13.3680		13.6412		11.1815		11.0283		-294.23		855.063		796.326		1467.21
1.107186	3.33994		3.34509		13.3841		13.6324		11.1480		11.0385		-294.67		854.294		797.096		1468.85
1.189131	3.34688		3.34900		13.3169		13.6272		11.1731		11.0589		-294.86		853.832		798.481		1470.49
1.280225	3.33300		3.33078		13.4567		13.6132		11.1536		11.0443		-295.28		853.832		796.480		1467.42
1.361677	3.32093		3.32883		13.4634		13.6359		11.1368		11.0152		-295.53		853.217		797.096		1465.58
1.445131	3.33391		3.32720		13.3908		13.6272		11.1368		11.0195		-295.92		853.217		798.943		1469.05
1.534740	3.34447		3.33046		13.4177		13.6447		11.1759		11.0195		-296.39		853.217		802.021		1471.92
1.618221	3.29317		3.30053		13.4714		13.6132		11.1717		11.0239		-296.78		853.063		798.327		1464.96
1.709195	3.30585		3.30801		13.4096		13.6045		11.1703		11.0210		-296.81		853.063		799.405		1469.46
1.789705	3.29981		3.30346		13.5319		13.6080		11.2038		11.0443		-297.29		853.063		798.635		1473.76
1.879952	3.29619		3.29273		13.4526		13.6289		11.1829		11.0429		-297.54		852.755		797.558		1470.90
1.964449	3.29710		3.30574		13.4593		13.6219		11.1648		11.0516		-297.57		852.909		801.098		1474.58
2.046944	3.30102		3.29923		13.4056		13.6342		11.1494		11.0604		-297.95		852.909		796.942		1471.31
2.137536	3.30494		3.29728		13.5023		13.6167		11.1536		11.0545		-298.08		853.217		800.636		1472.53
2.219448	3.28804		3.29175		13.4661		13.6132		11.1703		11.0516		-298.43		853.063		799.405		1471.31
2.311060	3.30192		3.28720		13.5682		13.6342		11.1815		11.0327		-298.81		853.217		799.251		1470.49
2.393422	3.31339		3.29305		13.4446		13.6202		11.1927		11.0312		-298.72		853.217		800.328		1472.12
2.475425	3.29468		3.28524		13.4553		13.6132		11.1257		11.0108		-298.97		853.217		798.173		1471.51
2.567390	3.28774		3.29533		13.4271		13.6045		11.1368		11.0137		-299.32		853.371		796.480		1473.97
2.649326	3.30373		3.29923		13.4190		13.6132		11.1536		11.0210		-299.23		853.371		798.327		1477.04
2.739817	3.29136		3.29142		13.4634		13.6027		11.1424		11.0327		-299.35		853.217		796.172		1472.94
2.823275	3.29770		3.28362		13.4056		13.5940		11.1661		11.0356		-299.58		853.063		797.096		1473.97
2.914220	3.29227		3.29012		13.4956		13.5992		11.1494		11.0195		-299.61		853.217		799.405		1476.42
2.997405	3.29529		3.29793		13.5131		13.5782		11.1480		11.0210		-299.61		853.217		799.559		1477.04
3.079340	3.30102		3.29598		13.4311		13.5992		11.1257		11.0195		-300.05		853.217		800.790		1478.47
3.169929	3.29468		3.28492		13.5454		13.5922		11.1368		11.0239		-299.99		853.371		798.789		1474.17
3.250926	3.30615		3.29175		13.4069		13.5677		11.1731		11.0210		-300.09		853.371		801.867		1474.79
3.342929	3.33119		3.29012		13.4069		13.5852		11.1648		11.0312		-300.12		853.832		803.253		1476.01
3.425369	3.29136		3.29175		13.3088		13.5642		11.1661		11.0210		-300.09		853.371		799.866		1474.58
END FILE																			

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#105

CALIBRATION PERFORMED 09-22-78 08:06:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 29 LU 15 FROM 300/ 0 TO 308/95 FILE STARTING T.O.D. 9:13:51.325615 T.C.V. ON T.O.D. 9:13:51.509430

PARAMETER	PFVD	PFVC-1		PFJC		PGH20T		PH20-J		PC-1		POJI		TFJ	
PARAMETER	PFJ	PFVC-2	PFVCD	PSIA	PSIA	PSIA	PAO	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	TFV1	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F
NEFF/ADC	22/ 60	23/ 61	24/ 64	25/ 65	26/ 72	27/ 73	28/ 76	29/ 77	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	57/153	59/157
-1.183815	1445.48	14.7134	1381.84	1373.39	14.5912	1373.10	1246.14	607.560	1190.55	95.7643	14.3480	14.7913	14.7140	70.1599	63.9280
-1.102338	1445.02	14.7134	1381.22	1372.62	14.5912	1372.95	1246.34	611.571	1191.99	98.4684	14.4531	14.8946	14.7140	70.2142	63.9280
-1.018923	1445.02	14.5076	1380.59	1372.16	14.5912	1372.95	1245.31	609.257	1191.99	98.4684	14.3480	14.7913	14.7140	70.0375	63.8869
.073853	1437.72	16.0516	1381.22	1372.62	50.3829	1372.95	1246.14	610.954	1190.35	98.9456	14.1377	14.7913	93.1385	69.7654	63.8458
.157294	1406.53	19.8603	1380.59	1372.16	105.250	1372.48	1246.14	609.411	1191.99	97.0368	14.3480	14.7913	397.257	68.8534	63.6265
.250160	1393.18	21.7131	1381.22	1372.62	105.660	1372.95	1246.14	610.646	1191.37	98.3094	14.4531	14.7913	392.941	66.0155	63.0230
.330687	1397.22	26.0365	1342.60	1333.32	1016.35	1156.51	1246.75	609.257	1191.99	95.9234	17.3974	17.4768	397.678	65.4550	62.6663
.412696	1400.48	29.3304	1367.67	1358.60	972.865	1023.08	1246.34	614.349	1192.60	101.014	17.3974	17.3735	402.310	65.5234	62.1171
.502798	1403.89	30.5657	1360.19	1351.66	967.122	1016.10	1246.55	613.732	1191.99	100.854	17.3974	17.2702	407.994	65.3455	61.0450
.584770	1405.91	34.8890	1360.82	1352.12	965.789	1015.01	1246.55	612.497	1190.96	99.5819	34.9575	34.6227	411.468	65.6874	60.7149
.676790	1026.46	1015.87	1362.69	1354.13	999.120	1046.04	1246.96	614.195	1189.74	101.491	562.183	555.714	402.205	65.8925	71.4850
.758835	1093.66	1078.97	1363.15	1354.59	1028.66	1076.30	1246.96	611.571	1191.99	102.604	602.876	603.123	290.200	65.7968	69.0918
.849437	1086.06	1075.99	1363.31	1354.75	1029.68	1076.92	1246.96	609.411	1191.99	100.377	610.552	606.118	66.6110	65.8515	67.3469
.933232	1084.82	1077.12	1363.15	1354.13	1029.48	1076.92	1247.16	612.343	1192.19	105.308	613.707	605.705	50.2945	65.8378	67.5515
1.014660	1083.11	1080.11	1362.53	1353.97	1028.76	1076.61	1247.16	614.195	1191.99	103.718	617.282	605.705	42.0836	65.3593	67.3333
1.107186	1081.87	1082.37	1361.91	1353.36	1028.66	1076.30	1247.16	611.726	1192.80	100.854	623.065	606.222	37.4518	64.7298	66.8008
1.189131	1081.09	1081.65	1362.53	1353.36	1028.66	1076.30	1247.78	616.200	1192.60	107.694	624.747	606.945	36.7149	64.3190	66.6233
1.280225	1079.07	1080.00	1362.53	1353.82	1028.25	1076.30	1247.16	614.812	1191.99	107.217	621.803	605.292	36.7149	64.1410	66.3774
1.361677	1079.07	1080.52	1362.53	1353.67	1028.35	1075.68	1247.78	613.577	1192.19	106.104	620.541	604.672	36.2939	64.0999	66.3091
1.445131	1078.76	1081.03	1362.53	1353.67	1028.66	1076.30	1247.78	611.263	1192.19	103.559	619.911	605.395	36.2939	63.9902	66.0905
1.534740	1079.23	1081.65	1362.53	1353.67	1028.66	1076.45	1247.78	612.652	1192.80	105.945	618.859	606.222	36.2939	63.6476	65.8444
1.618221	1078.61	1080.31	1362.53	1353.67	1028.35	1076.30	1247.16	614.040	1192.80	107.217	614.653	603.743	36.2939	63.5380	65.5983
1.709195	1078.61	1080.11	1362.69	1354.13	1028.66	1076.30	1247.78	611.571	1191.99	103.877	613.917	604.879	35.8728	63.4282	65.4615
1.789705	1085.59	1085.87	1362.69	1354.13	1028.66	1076.92	1247.78	612.343	1192.19	100.218	613.917	605.602	13.7666	64.2368	65.9264
1.879952	1085.44	1084.12	1362.69	1354.13	1028.86	1076.30	1247.78	610.646	1191.99	100.377	611.709	604.466	14.3982	63.1129	65.4478
1.964449	1083.73	1081.24	1362.84	1354.13	1029.17	1076.92	1247.78	611.263	1191.99	100.218	612.129	606.222	14.5034	62.5503	64.9963
2.046944	1081.71	1077.22	1362.69	1354.13	1028.66	1076.45	1247.78	610.800	1193.01	103.400	609.606	605.395	14.5034	61.9598	64.4075
2.137536	1080.78	1073.93	1362.84	1354.13	1028.76	1076.30	1247.78	608.485	1191.99	100.854	609.606	609.527	14.3982	62.1659	64.2432
2.219448	1080.01	1071.77	1362.69	1354.13	1028.66	1076.45	1247.78	609.874	1191.99	101.491	608.028	610.663	14.3982	61.9048	63.9966
2.311060	1080.01	1069.71	1362.69	1354.13	1028.66	1076.30	1250.04	611.571	1191.37	104.036	606.977	611.076	14.3982	61.7812	63.1740
2.393422	1080.01	1068.89	1362.84	1354.13	1028.66	1076.45	1248.60	613.732	1191.17	107.217	607.292	612.832	14.5034	61.5339	63.7636
2.475425	1080.01	1067.24	1363.15	1354.28	1028.76	1076.76	1247.78	609.874	1190.35	102.604	606.767	617.067	14.5034	61.3965	63.5168
2.567390	1080.47	1066.83	1363.15	1354.28	1029.48	1077.07	1247.16	608.794	1191.99	100.218	607.503	621.405	14.5034	61.1902	63.3523
2.649326	1081.09	1066.42	1363.15	1354.28	1029.48	1077.23	1247.78	611.109	1189.74	103.400	607.923	623.058	14.5034	60.9014	63.1329
2.739817	1080.47	1065.18	1363.15	1354.59	1029.48	1077.38	1247.78	609.874	1190.55	101.014	606.661	620.992	14.5034	60.4062	62.7486
2.823275	1080.32	1064.36	1363.15	1354.59	1029.48	1077.07	1243.67	607.868	1188.71	101.014	606.661	619.339	14.3982	60.4612	62.6389
2.914220	1080.47	1063.95	1363.15	1354.28	1029.58	1077.69	1243.87	608.485	1187.28	100.059	607.503	618.203	14.7140	60.2823	62.5153
2.997405	1080.63	1064.05	1363.15	1354.44	1029.89	1077.38	1243.05	606.171	1186.47	99.7410	607.503	616.860	14.7140	60.0758	62.3094
3.079340	1080.63	1063.64	1363.15	1354.28	1030.30	1077.38	1241.20	609.874	1186.26	102.286	607.503	615.518	14.5034	59.7453	61.9797
3.169929	1080.16	1062.61	1363.31	1354.75	1029.68	1077.38	1240.38	606.325	1182.78	102.127	605.820	612.316	14.7140	59.4283	61.7874
3.250926	1081.09	1063.12	1363.31	1354.75	1029.89	1078.00	1238.94	608.177	1183.81	99.7410	606.661	612.213	14.7140	59.1942	61.3887
3.342929	1080.47	1062.61	1363.78	1354.90	1030.71	1078.16	1238.94	608.485	1184.63	101.491	606.872	611.490	14.5034	59.0287	61.2926
3.425369	1081.09	1062.61	1363.78	1354.75	1030.60	1078.31	1240.17	608.485	1185.44	101.014	606.241	610.250	14.5034	58.9046	61.1963

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#105

CALIBRATION PERFORMED 09-22-78 08:06:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 29 LU 15 FROM 300/ 0 TO 308/95 FILE STARTING T.O.D. 9:13:51.325615 T.C.V. ON T.O.D. 9:13:51.509430

PARAMETER	TOBL	TAQ		TFO		TFVC-1		T-2		T-3		T-4		T-6		T-7		T-9		T-10		T-11		
PARAMETER	TOJ	TOJ	TIN	TFJC	T-2	T-3	T-4	T-6	T-7	T-9	T-10	T-11												
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	
NEFF/ADC	60/160	61/161	62/168	63/169	69/185	71/189	72/192	73/193	74/200	75/201	76/204	77/205	78/208	79/209	80/216									
-.183815	-282.46	59.9275	68.3607	67.4864	69.3967	109.850	62.5321	4.31229	-9.4272	-16.148	133.949	41.5735	26.7413	33.1497	52.8484									
-.102338	-283.31	60.2032	68.1425	67.4864	71.5073	92.7977	62.7519	35.4529	28.0182	18.4391	106.757	55.3748	51.1985	53.4880	60.9643									
-.018923	-280.99	60.2032	68.5243	67.9227	71.7793	122.993	62.4771	-10.181	-26.924	-43.035	140.304	37.6980	22.8259	32.0397	47.8834									
.073853	-277.26	61.7529	68.4697	67.8000	72.3364	131.915	61.3914	-11.772	-30.465	-40.786	148.098	37.6980	28.2765	32.5947	45.1212									
.157294	-275.34	53.2795	68.6877	67.9363	71.7385	163.035	62.0375	-46.479	-67.393	-84.427	176.135	17.3702	1.62646	9.17975	29.9304									
.250160	-272.66	51.5042	68.5789	67.8136	71.7249	139.797	62.4634	-15.690	-34.616	-43.635	151.132	30.8130	18.8984	25.1062	36.6820									
.330687	-270.64	50.9813	69.2327	67.8273	72.6896	133.955	66.8061	.315475	-18.571	-31.851	146.646	34.7889	26.8810	32.4560	43.3245									
.412696	-268.63	50.7023	69.3416	67.9363	71.8336	145.693	62.8068	-22.112	-39.983	-65.435	163.511	29.1400	14.6760	24.1256	40.2815									
.502798	-268.63	50.2137	68.7150	67.9227	72.4451	161.559	64.0142	-44.671	-75.355	-96.002	178.370	21.8668	-.08766	8.89584	32.8022									
.584770	-268.63	-229.39	69.2736	68.2496	71.9967	161.276	63.8770	-36.735	-10.005	77.6363	182.577	42.5416	20.0218	30.2774	32.8022									
.676790	-268.63	-262.00	68.8376	67.7455	73.5718	113.144	64.2883	14.6621	1054.30	396.537	110.643	833.227	633.655	775.196	64.5316									
.758835	-269.70	-268.93	72.6708	68.7944	72.2820	178.298	63.8495	-74.301	1101.24	369.122	131.828	749.227	732.416	909.858	58.2163									
.849437	-269.97	-273.63	77.9697	68.5356	73.3547	182.710	63.5479	-81.872	1106.91	463.426	109.572	769.240	779.178	944.314	69.8715									
.933232	-269.17	-274.31	79.4641	68.0999	106.262	143.414	64.0964	-15.254	1208.89	580.400	41.8544	810.074	863.977	1021.50	89.8702									
1.014660	-269.17	-276.47	82.0427	67.8954	123.810	135.220	64.0827	-16.272	1209.02	584.770	30.6797	817.839	877.516	1039.29	94.8711									
1.107186	-269.17	-278.26	83.7038	68.4677	130.727	147.679	63.8633	-22.405	1209.02	571.917	41.8544	803.212	884.606	1046.77	95.8158									
1.189131	-269.17	-279.29	84.3994	68.1271	132.861	151.963	64.0142	-39.421	1196.04	575.742	45.3101	821.849	882.157	1046.39	92.5751									
1.280225	-269.17	-280.47	85.2019	68.1816	136.115	176.698	63.6302	-66.351	1159.12	548.271	90.0515	800.622	853.657	1022.27	86.6193									
1.361677	-269.17	-279.85	85.0944	67.8273	135.584	125.512	64.0142	-12.932	1222.52	624.909	15.5470	835.941	886.152	1061.35	105.774									
1.445131	-269.10	-281.66	85.7890	68.0452	136.659	145.367	63.9594	-29.466	1206.42	603.808	43.0989	815.121	886.152	1057.61	104.431									
1.534740	-268.83	-282.71	86.0959	68.3042	137.063	145.005	63.8495	-22.405	1242.16	615.421	35.7640	820.685	881.254	1050.13	99.3203									
1.618221	-269.03	-283.70	86.0558	67.9227	137.821	140.187	63.8633	-20.941	1248.41	619.112	36.4566	823.918	883.059	1054.51	100.667									
1.709195	-269.17	-284.06	86.3361	68.2496	137.581	123.966	63.8907	-9.4582	1245.29	644.512	19.6283	830.383	887.699	1067.67	106.579									
1.789705	-267.96	-284.98	86.9629	68.3586	140.958	153.564	63.9594	-44.671	1209.28	577.353	46.2770	817.321	885.637	1051.42	99.1856									
1.879952	-267.56	-287.78	86.6963	68.1951	137.972	135.712	63.9044	-34.057	1228.11	598.525	32.1610	824.694	873.261	1056.70	100.667									
1.964449	-267.50	-285.69	86.8430	67.9772	138.741	133.664	64.0142	-5.9975	1261.57	620.693	21.1728	837.233	898.009	1068.19	106.579									
2.046944	-267.03	-286.05	87.1762	68.6447	139.031	159.674	63.9044	-53.754	1185.02	572.713	55.1017	811.627	872.746	1048.97	97.0296									
2.137536	-266.76	-286.55	87.4427	68.0452	138.590	105.317	64.1786	20.2931	1296.97	682.284	-4.8033	848.860	918.625	1084.84	118.351									
2.219448	-266.36	-287.27	87.2562	68.2633	138.856	131.369	63.9044	-20.502	1223.04	631.887	34.1014	826.116	883.575	1057.35	106.579									
2.311060	-266.43	-288.07	87.6025	68.1542	138.477	129.438	60.1249	-9.4582	1258.84	638.202	13.0066	818.874	891.050	1063.54	110.332									
2.393422	-267.03	-287.42	87.5493	68.3722	139.586	121.108	64.0827	-12.207	1250.76	636.492	13.8540	825.470	899.040	1072.19	111.938									
2.475425	-267.23	-287.78	87.7758	68.1271	139.346	124.030	64.1238	-2.25676	1283.89	666.171	16.6743	828.185	908.833	1074.38	109.394									
2.567390	-266.96	-288.00	87.6692	68.1271	139.535	115.897	64.2335	1.45900	1269.40	659.613	6.20341	830.771	908.318	1077.67	113.008									
2.649326	-267.29	-288.29	87.9755	69.3387	139.787	132.232	64.1786	-16.418	1249.45	638.860	22.9955	834.390	900.200	1078.25	107.115									
2.739817	-268.03	-288.43	88.1486	68.4813	139.888	150.010	63.9730	-50.714	1167.41	569.397	49.8656	827.539	874.293	1044.84	102.953									
2.823275	-267.76	-288.94	87.9222	68.1951	139.938	125.040	64.3020	-6.4294	1251.54	647.535	17.9412	838.396	908.833	1079.93	110.867									
2.914220	-267.83	-288.94	88.1886	68.0452	142.152	130.556	64.2335	-12.352	1243.59	636.098	27.3319	835.424	896.463	1067.67	109.796									
2.997405	-268.43	-289.60	88.4016	68.3586	140.341	137.341	64.4116	-17.583	1245.94	638.071	27.4715	835.295	900.329	1067.03	108.188									
3.079340	-269.43	-289.60	88.4148	68.3177	139.989	128.611	64.3020	-10.325	1255.84	645.170	23.2757	822.625	904.710	1072.19	109.796									
3.169929	-268.90	-289.60	88.4415	68.3586	140.052	128.000	64.3979	-4.8466	1246.98	636.098	16.3926	833.744	907.802	1076.19	108.858									
3.250926	-269.17	-289.60	88.3350	68.1271	140.429	129.018	64.4116	-22.844	1217.20	621.221	23.4158	834.778	906.256	1076.19	109.796									
3.342929	-269.43	-290.04	88.6144	68.4677	139.636	129.679	64.4254	-16.855	1233.97	641.752	25.3753	834.778	901.617	1073.74	112.340									
3.425369	-269.43	-290.11	89.0402	68.5356	140.241	136.016	64.5076	-12.352	1239.04	645.301	30.4010	826.116	899.556	1076.19	115.147									
END FILE																								

END FILE

## TRANS. REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#105

CALIBRATION PERFORMED 09-22-78 08:06:46

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 29 LU 15 FROM 300/ 0 TO 308/95 FILE STARTING T.O.D. 9:13:51.325615 T.C.V. ON T.O.D. 9:13:51.509430

PARAMETER	T-12	T-15	T-17	T-19	POJ				
PARAMETER	T-14	T-16	T-18	PFJ-HF					
UNITS	DEG F	DEG F	DEG F	DEG F	PSIA				
NEFF/ADC	81/217	82/220	83/221	84/224	85/225				
	86/232	87/233	19/ 49	30/ 80	COUNTS				
-183815	53.2648	55.3288	56.0318	56.5659	52.5663	50.1575	40.9799	16.2767	8.00000
-102338	63.8505	61.6510	62.0800	63.1602	59.8647	58.9711	54.7843	16.2767	9.00000
-018923	51.6108	52.2992	54.2419	56.0155	50.4967	46.9828	40.2880	16.1946	8.00000
.073853	47.6095	49.9557	52.5884	53.9505	48.5638	42.8366	39.1807	18.5759	212.000
.157294	36.2671	38.2099	41.5401	45.5357	36.5240	26.7835	19.7199	22.8458	420.000
.250160	37.9292	43.7428	46.6552	53.5373	47.1822	34.6678	35.4413	25.0628	408.000
.330687	41.3897	48.3002	50.3822	55.4650	50.4967	41.3150	39.5960	29.6612	408.000
.412696	37.5138	44.8483	46.2408	53.9505	46.7676	37.0233	33.0853	33.1921	412.000
.502798	32.2477	40.0090	41.5401	51.0566	44.2788	28.7386	29.7966	34.2595	404.000
.584770	39.1754	54.3652	51.2098	64.3945	50.6348	38.1313	33.5011	38.6116	2816.00
.676790	36.656	493.828	514.394	344.818	281.056	572.380	328.606	1021.67	7016.00
.758835	444.984	674.500	729.235	407.370	384.101	747.753	415.322	1125.06	6980.00
.849437	478.772	756.422	791.617	416.102	382.866	789.310	409.865	1101.82	6984.00
.933232	503.503	803.244	830.324	428.629	401.635	814.050	440.488	1091.96	6969.00
1.014660	510.874	809.198	844.282	425.364	400.404	814.050	441.574	1074.31	6962.00
1.107186	508.731	814.503	852.678	423.730	398.215	809.390	437.773	1065.28	6956.00
1.189131	515.693	818.125	853.711	423.730	400.951	816.121	441.031	1059.45	6969.00
1.280225	507.257	806.739	845.703	415.556	387.804	801.750	425.403	1055.18	6940.00
1.361677	529.059	822.263	863.008	425.908	403.140	824.400	450.115	1052.55	6928.00
1.445131	523.717	820.582	863.395	426.453	401.635	827.504	444.151	1050.41	6945.00
1.534740	520.107	813.985	864.557	426.044	401.909	821.943	444.694	1049.35	6952.00
1.618221	520.509	815.150	864.428	425.092	400.404	821.425	442.659	1047.46	6912.00
1.709195	527.056	822.263	869.849	428.765	408.061	837.329	454.989	1046.88	6928.00
1.789705	521.177	818.442	860.942	423.730	399.994	818.579	443.202	1052.88	6938.00
1.879952	525.988	813.080	865.589	422.641	400.404	820.778	442.931	1051.89	6921.00
1.964449	532.930	820.194	867.138	432.436	407.104	832.158	452.823	1049.59	6948.00
2.046944	519.439	812.045	859.651	422.097	398.762	816.121	441.303	1047.29	6924.00
2.137536	539.731	832.604	879.914	434.610	416.253	847.148	464.723	1045.57	6930.00
2.219448	529.594	826.013	871.785	426.180	402.729	829.831	441.845	1044.58	6918.00
2.311060	524.385	820.453	871.140	428.765	407.651	830.090	444.016	1044.26	6912.00
2.393422	532.930	829.503	874.882	428.629	409.154	841.593	454.718	1044.58	6920.00
2.475425	530.128	827.047	876.301	433.523	410.929	833.839	458.506	1044.34	6920.00
2.567390	531.195	830.924	879.011	436.783	413.524	839.913	462.562	1045.00	6932.00
2.649326	530.128	826.530	879.656	433.523	409.154	831.641	456.207	1045.49	6944.00
2.739817	533.864	823.297	871.140	426.453	400.404	824.400	440.353	1045.16	6924.00
2.823275	533.998	829.632	879.914	432.436	408.197	838.492	451.740	1045.16	6924.00
2.914220	533.464	824.978	876.818	429.445	406.011	838.363	453.229	1045.65	6944.00
2.997405	533.464	825.366	874.366	429.173	406.421	832.805	447.947	1046.31	6945.00
3.079340	528.525	825.754	878.882	429.173	409.700	836.295	448.760	1046.64	6952.00
3.169929	527.056	826.400	875.785	432.436	410.793	834.227	451.198	1046.23	6920.00
3.250926	532.797	831.571	880.430	431.349	409.564	840.559	450.657	1046.80	6932.00
3.342929	534.531	827.564	878.882	429.853	409.700	834.873	451.198	1046.97	6942.00
3.425369	530.795	832.604	879.398	431.892	409.837	838.363	450.386	1047.46	6925.00

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 44 LU 15 FROM 337/ 0 TO 341/95 FILE STARTING T.O.D. 10:57: 3.454251 T.C.V. ON T.O.D. 10:57: 3.454251

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-B	FCALB 319418	PFV-2							
PARAMETER	WLO2-2	WH20P-2	WH20C-2	PGOT	F-A	FCALA 31941A	PFV-1								
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56	21/ 57
.000000	.341852	.362884	13.8143	14.0935	11.2268	11.0653	-301.48	863.922	834.624	81.9337	82.4831	-.08152	.236215	1440.77	1438.98
.082681	.375643	.381424	13.8721	14.1180	11.2394	11.0696	-301.60	863.461	835.240	81.9337	82.0708	-.28747	.236215	1440.16	1438.36
.166339	.324957	.326456	14.1207	14.1075	11.2101	11.0609	-301.38	863.153	838.778	81.7290	81.6586	-.08152	-.38224	1440.31	1438.51
.257758	.359955	.305314	14.1328	14.1197	11.2101	11.0551	-301.25	863.153	868.934	81.7290	81.8647	1.56604	-.38224	1440.16	1438.67
.340715	.307157	.332636	13.9057	14.1005	11.2338	11.0828	-301.25	863.461	870.164	81.1152	81.6586	-.08152	.236215	1440.46	1438.36
.429871	.292072	.459486	13.9554	14.1162	11.2045	11.0915	-301.38	863.307	871.857	81.1152	81.0402	.124425	.030064	1440.31	1438.98
.511777	.171391	.477700	13.8842	14.1075	11.2157	11.0711	-301.35	863.307	870.164	80.9106	81.0402	.124425	-.38224	1440.61	1438.51
.594240	.236861	.490385	14.0294	14.1215	11.1822	11.0551	-301.38	863.307	868.934	81.1152	81.6586	.124425	.236215	1440.46	1438.36
.684754	.156005	.455257	13.8909	14.1022	11.1613	11.0711	-301.22	863.307	851.856	81.1152	81.6586	-.08152	.236215	1440.92	1438.98
.767721	.157815	.183668	13.9568	14.1092	11.1933	11.0565	-300.87	863.307	854.933	80.2967	80.6280	-.08152	-.38224	1440.31	1438.98
.858319	.094458	.273439	13.9192	14.0935	11.2240	11.0711	-301.03	863.307	843.548	80.7059	81.0402	.124425	-.38224	1440.77	1438.98
.940319	.164754	.280920	14.0119	14.1162	11.1878	11.0667	-301.03	863.307	846.625	81.3198	81.0402	.124425	.030064	1440.77	1438.98
1.029555	.142730	.304338	13.8614	14.1162	11.2268	11.0623	-301.06	863.307	842.471	80.9106	81.6586	.124425	.236215	1440.92	1439.29
1.114256	.142730	.245792	13.9044	14.0987	11.1933	11.0726	-300.87	863.307	843.086	80.2967	80.2157	.124425	.236215	1441.30	1439.44
1.196635	.143937	.294906	13.8788	14.1005	11.2268	11.0667	-300.84	863.307	843.548	79.8875	79.8035	-.28747	.030064	1440.92	1439.75
1.288143	.134282	.319300	13.8358	14.1005	11.2380	11.0623	-300.87	863.307	850.163	80.2967	80.2157	.330371	.236215	1441.38	1439.60
1.370593	.134282	.316047	13.8224	14.1057	11.2087	11.0711	-300.87	863.153	848.010	80.0921	80.2157	.330371	.442366	1441.38	1439.60
1.459849	.147557	.257827	13.7995	14.1302	11.2045	11.0653	-300.84	863.307	861.087	79.4782	80.0096	.124425	.236215	1441.38	1439.91
1.543163	.131869	.239287	14.0280	14.1232	11.2003	11.0711	-300.97	863.307	856.779	80.0921	80.2157	.330371	.236215	1441.38	1439.75
1.626131	.129455	.361583	13.8587	14.1005	11.2059	11.0609	-300.87	863.153	851.702	79.4782	80.0096	-.08152	.236215	1441.38	1439.75
1.716869	.134584	.130001	14.0656	14.1040	11.2226	11.0653	-300.59	862.845	866.472	79.2736	80.0096	.124425	-.17609	1441.38	1439.75
1.799400	.121309	.163502	13.8372	14.1110	11.2268	11.0755	-300.62	863.307	862.779	79.2736	80.0096	.124425	.236215	1441.53	1439.91
1.881735	.142730	.185620	13.8358	14.1005	11.2003	11.0726	-300.36	863.307	859.241	79.0690	80.0096	.330371	-.38224	1441.84	1440.06

END FILE



## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 44 LU 15 FROM 337/ D TO 341/95 FILE STARTING T.O.D. 10:57: 3.454251 T.C.V. ON T.O.D. 10:57: 3.454251

PARAMETER	TOBL	TAO	TFO	TFVC-1	T-3	T-6	T-9	T-11							
PARAMETER	TOJ	TIN	TFJC	T-2	T-4	T-7	T-10								
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F							
NEFF/ADC	60/160	61/161	62/168	63/169	69/185	71/189	72/192	73/193	74/200	75/201	76/204	77/205	78/208	79/209	80/216
.000000	-279.08	2.93417	72.7577	69.4666	71.6981	78.5767	66.0494	54.3362	187.840	144.228	-5.5210	208.008	213.069	243.935	110.301
.082681	-278.73	4.44342	72.9068	69.4529	72.0484	77.3793	66.0903	58.7379	184.947	142.245	-3.4057	200.970	206.255	236.298	110.301
.166339	-278.87	5.80238	73.1915	69.4938	71.7982	78.7013	66.1177	58.7379	178.901	139.071	1.86279	199.516	205.769	232.858	111.372
.257758	-278.80	7.52466	72.8526	69.6165	71.9233	75.5049	66.1724	57.7757	174.170	135.894	3.43802	187.409	191.448	216.705	101.848
.340715	-279.08	8.58525	73.6251	69.8480	72.6486	79.4985	66.0903	53.3723	164.179	127.004	15.6973	192.249	192.418	215.729	105.073
.429871	-279.36	9.86330	72.2557	68.7987	71.7982	73.5510	66.0903	68.1998	175.221	138.807	-5.2564	181.846	187.570	210.368	106.146
.511777	-279.43	11.0300	72.7984	69.4393	71.6480	77.3044	66.1040	50.7540	154.176	118.749	23.7117	179.670	180.788	205.014	100.772
.594240	-279.63	11.7948	72.6356	69.2758	71.6230	75.9801	66.0630	64.7764	162.600	128.466	13.3603	179.912	182.483	203.799	103.864
.684754	-279.91	12.7772	72.2692	69.3985	72.4485	78.5767	66.0630	57.0882	152.727	118.616	22.9384	177.494	176.671	196.512	101.041
.767721	-279.91	13.7585	71.7670	68.3623	71.6230	71.5674	66.0903	68.6103	160.495	126.739	8.14949	165.644	171.585	190.690	100.772
.858319	-280.26	14.4123	72.0385	68.7987	71.3476	73.7015	66.0903	64.3652	153.518	121.282	16.7344	165.402	170.132	187.539	98.6186
.940319	-281.02	15.1019	72.2692	69.1124	71.5229	74.5786	66.0494	60.3864	146.793	115.546	25.7717	166.128	167.952	184.630	98.8880
1.029555	-280.75	15.9726	71.7534	69.6436	71.3476	70.6367	66.0494	68.0630	148.904	117.682	17.5117	157.172	162.136	179.300	99.0226
1.114256	-280.54	16.5164	72.4186	69.4666	71.3977	77.0048	65.9536	56.2629	133.041	103.219	40.1787	158.867	160.197	177.120	96.7322
1.196635	-280.26	17.4225	71.9842	68.9624	71.3977	73.1497	65.9946	62.5825	138.470	112.337	29.8022	155.234	157.287	173.970	98.2146
1.288143	-280.54	17.8572	71.9300	68.8397	71.7982	73.1747	65.9399	59.8370	131.317	103.891	37.1219	150.870	153.404	167.186	93.0887
1.370593	-280.19	18.4367	71.8621	67.2703	71.3226	72.5975	65.9399	63.1311	134.101	106.039	34.5728	149.657	152.433	166.459	95.2486
1.459849	-280.75	5.36194	71.9300	68.9624	71.2476	69.9821	65.8989	62.5825	130.919	104.159	35.5926	148.687	151.219	165.247	95.2486
1.543163	-280.26	-2.9549	71.8214	68.8397	71.4478	65.5369	66.0494	71.0712	137.411	112.337	26.0290	149.415	150.733	163.792	95.3836
1.626131	-280.26	-7.7783	72.3777	69.3167	67.2314	67.9645	65.9399	65.3245	130.256	106.308	36.6122	150.628	149.761	162.337	96.3277
1.716869	-280.19	-11.849	71.8349	69.2213	71.3977	67.5352	65.8442	68.7471	128.929	105.905	40.1787	149.657	148.789	162.337	97.9451
1.799400	-279.91	-14.656	71.7670	69.3440	71.3476	66.5493	65.6118	69.5677	129.194	105.905	38.1411	142.372	144.899	157.971	95.5185
1.881735	-280.26	-17.363	71.4003	68.7851	71.2224	66.2204	65.8442	71.0712	128.796	107.515	37.1219	143.344	143.682	156.515	96.3277

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 44 LU 15 FROM 337/ 0 TO 341/95 FILE STARTING T.O.D. 10:57: 3.454251 T.C.V. ON T.O.D. 10:57: 3.454251

PARAMETER	T-12	T-14	T-15	T-16	T-17	T-18	T-19	PFJ-HF	POJ
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA	COUNTS
NEFF/ADC	81/217	82/220	83/221	84/224	85/225	86/232	87/233	19/ 49	30/ 80
.000000	134.023	150.399	170.867	72.2710	73.5022	79.5868	63.8813	22.5976	304.000
.082681	132.432	145.122	165.344	71.1783	72.8197	78.0903	64.2925	22.6797	313.000
.166339	132.962	146.046	164.949	73.3630	73.6387	81.3539	64.9777	22.7618	310.000
.257758	121.001	134.543	153.099	68.9911	70.6342	73.1845	61.8240	22.9261	313.000
.340715	123.131	137.985	155.471	71.8613	72.9562	76.0477	61.6867	23.0904	313.000
.429871	124.462	132.953	149.671	72.2710	72.8197	76.4564	66.7582	23.0904	313.000
.511777	117.133	129.239	145.579	69.5381	72.2736	74.8212	62.2356	23.0082	316.000
.594240	120.468	133.350	147.692	72.6806	73.9116	79.1788	65.1147	23.0904	320.000
.684754	116.065	127.380	142.805	70.6317	72.4101	76.4564	62.5100	23.2546	320.000
.767721	115.665	121.794	135.926	71.1783	71.8639	75.9115	67.1689	23.2546	320.000
.858319	112.992	123.791	136.853	71.7247	72.8197	75.3664	65.7997	23.2546	320.000
.940319	111.119	123.791	136.985	71.8613	73.2292	75.5027	63.4700	23.0904	320.000
1.029555	112.457	116.996	130.092	71.3149	71.7273	74.9575	66.7582	23.2546	320.000
1.114256	109.646	116.862	129.295	70.6317	72.0005	74.8212	63.0586	23.2546	320.000
1.196635	109.913	115.661	128.498	71.1783	71.8639	75.9115	64.8407	23.2546	320.000
1.288143	103.877	113.122	123.712	69.5381	71.1808	73.3210	63.8813	23.4189	320.000
1.370593	105.489	112.588	123.845	70.7683	71.8639	74.4122	65.1147	23.2546	320.000
1.459849	105.891	112.989	123.712	71.8613	72.8197	75.5027	66.0736	16.5200	16.0000
1.543163	106.831	113.122	122.780	71.7247	72.6832	77.2735	67.8531	14.2203	21.0000
1.626131	105.757	114.192	123.712	72.2710	73.2292	77.0012	64.8407	14.3846	21.0000
1.716869	106.965	113.523	123.712	73.3630	74.1845	78.9067	65.9366	14.3846	21.0000
1.799400	104.952	110.045	119.982	72.2710	73.6387	77.5458	67.1689	14.5489	21.0000
1.881735	104.952	109.242	118.382	71.5881	73.2292	78.6347	67.0320	14.5489	21.0000

END FILE



## TRANS-REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 43 LU 15 FROM 334/ 0 TO 336/95 FILE STARTING T.O.D. 10:57: 1.153349 T.C.V. ON T.O.D. 10:57: 1.153349

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	POV	F-B	FCALB 31941B	PFV-2							
PARAMETER	WL02-2	WH20P-2	WH20C-2	PGOT	F-A	F-B	FCALA 31941A	PFV-1							
UNITS	LB-W	LB-W	LR-W	LB-W	LB-W	LB-W	LBS	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56	21/ 57
.000000	3.32145	3.30808	13.8426	14.1197	11.2617	11.1455	-302.30	853.156	794.776	2855.37	2864.30	1418.47	1421.85	1364.83	1363.18
.079759	3.31783	3.30320	13.9326	14.0952	11.2938	11.1426	-301.89	852.848	796.469	2906.11	2914.60	1467.90	1472.36	1364.37	1363.49
.159539	3.30999	3.30678	13.9218	14.0970	11.3050	11.1324	-301.86	852.848	796.469	2953.18	2961.39	1518.15	1522.66	1364.52	1363.64
.249525	3.33835	3.30418	14.1584	14.0900	11.3050	11.1528	-301.89	852.848	796.469	2991.64	3000.34	1556.45	1560.39	1364.37	1363.64
.329535	3.30607	3.31036	14.1167	14.1057	11.2826	11.1542	-301.99	852.848	793.853	2986.53	2995.60	1552.75	1555.64	1364.37	1363.64
.419241	3.29883	3.30158	13.9662	14.0970	11.3106	11.1455	-301.64	852.848	793.853	2981.62	2990.45	1546.36	1550.49	1364.52	1363.64
.499538	3.30697	3.30743	13.9017	14.0952	11.3175	11.1294	-301.86	852.848	792.776	2976.09	2985.50	1541.42	1545.54	1364.52	1363.64
.579538	3.30576	3.30938	13.9286	14.0865	11.3175	11.1499	-302.11	852.848	794.623	2973.64	2982.82	1536.48	1540.59	1364.98	1363.80
.669536	3.30335	3.30092	14.0186	14.1005	11.3050	11.1747	-302.11	852.848	793.238	2969.34	2977.88	1533.18	1537.30	1364.83	1363.64
.749539	3.27197	3.26937	13.9769	14.0882	11.3050	11.1659	-301.89	852.848	837.086	2881.97	2891.51	1556.25	1560.39	1364.83	1363.80
.838524	.909352	.734978	14.0307	14.1092	11.3008	11.1776	-302.05	855.770	886.165	1791.34	1795.77	1574.99	1577.91	1445.04	1443.17
.919080	.909352	.865080	13.9823	14.0917	11.3119	11.1572	-302.05	857.770	854.318	1624.78	1630.05	1581.99	1584.50	1441.99	1440.38
1.006104	.831815	.787019	14.0092	14.1162	11.2492	11.1076	-301.99	860.231	803.700	1605.95	1611.08	1571.69	1574.61	1441.53	1440.06
1.087517	.795611	.766202	13.9474	14.0970	11.1933	11.0988	-301.89	861.461	836.163	1600.84	1605.31	1565.93	1569.46	1441.38	1439.60
1.167518	.728935	.732050	13.8264	14.1005	11.2226	11.0886	-301.99	862.692	858.472	1596.13	1602.22	1562.43	1565.54	1440.92	1439.91

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 43 LU 15 FROM 334/ 0 TO 336/95 FILE STARTING T.O.D. 10:57: 1.153349 T.C.V. ON T.O.D. 10:57: 1.153349																
PARAMETER	PFVD	PFVC-1		PFJC		PGH2OT		PH2O-J		PC-1		PC-2		POJI		TFJ
PARAMETER	PFJ	PFVC-2		PFVCD		PAO		PH2O-OUT		PC-2		TFV1				
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F
NEFF/ADC	22/ 60	23/ 61	24/ 64	25/ 65	26/ 72	27/ 73	28/ 76	29/ 77	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	57/153	59/157	
.000000	1078.57	1060.62	1379.25	1370.59	1035.13	1084.44	1276.85	627.269	1219.69	109.598	602.888	602.846	14.6899	56.9832	59.7953	
.079759	1078.10	1060.62	1378.32	1369.36	1035.13	1084.13	1276.65	628.657	1218.46	108.325	603.308	603.569	14.9004	56.8449	59.6023	
.159539	1078.10	1060.62	1378.63	1369.51	1035.13	1083.82	1276.65	627.886	1220.10	106.893	602.572	603.156	14.6899	56.4577	59.4092	
.249525	1078.57	1060.93	1378.63	1369.82	1035.13	1084.44	1276.65	628.349	1220.30	106.098	603.098	603.569	14.9004	56.2363	59.0761	
.329535	1078.57	1061.04	1378.63	1369.82	1035.13	1084.13	1276.24	626.652	1218.87	107.053	602.888	603.259	14.6899	56.4577	59.0229	
.419241	1078.73	1060.93	1378.16	1369.98	1035.13	1083.82	1276.44	627.269	1219.08	107.371	603.203	603.569	14.6899	56.0841	58.7469	
.499538	1078.10	1061.04	1379.25	1369.82	1035.23	1084.13	1276.65	627.269	1218.87	110.075	602.888	603.259	14.6899	55.6550	58.4984	
.579538	1079.19	1061.04	1378.63	1369.82	1035.23	1084.44	1276.85	630.662	1219.48	105.621	603.729	604.086	14.9004	55.1008	58.1118	
.669536	1078.57	1060.93	1378.78	1369.98	1035.23	1084.28	1276.65	630.508	1221.12	106.893	602.993	603.569	15.1110	55.0314	57.6281	
.749539	1092.23	1049.71	1402.15	1393.87	523.646	1374.89	1276.03	626.189	1218.05	103.235	543.982	544.467	14.6899	55.4887	57.9459	
.838524	1453.71	95.8336	1414.29	1406.36	144.446	1407.33	1277.68	626.343	1218.26	101.962	100.506	99.4450	15.0057	61.6702	12.6967	
.919080	1446.57	40.1172	1408.53	1400.66	96.2125	1402.21	1276.03	626.960	1219.48	101.803	18.8798	17.6113	14.9004	62.2061	4.26280	
1.006104	1446.11	22.8152	1403.08	1395.26	94.3652	1396.47	1276.03	626.343	1219.48	99.2581	13.4100	12.6517	14.9004	62.3983	13.6414	
1.087517	1445.64	19.9315	1398.10	1390.17	95.9046	1391.19	1276.65	628.040	1218.26	98.6219	13.0944	12.6517	14.9004	62.5494	21.8277	
1.167518	1445.02	20.2405	1393.27	1385.24	96.7256	1386.06	1274.80	625.417	1218.46	99.2581	12.9892	12.6517	15.0057	62.1236	27.0708	

END FILE

12.77

12.21

58

48

294

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 43 LU 15 FROM 334/ 0 TO 336/95 FILE STARTING T.O.D. 10:57: 1.153349 T.C.V. ON T.O.D. 10:57: 1.153349

PARAMETER	TOBL	TAO	TFQ	TFVC-1	T-3	T-6	T-9	T-11
PARAMETER	TOJ	TIN	TFJC	T-2	T-4	T-7	T-10	
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	60/160	61/161	62/168	63/169	69/185	71/189	72/192	73/193
	74/200	75/201	76/204	77/205	78/208	79/209	80/216	
.000000	-277.77	-291.58	90.2048	69.1531	137.455	78.6764	66.6097	64.3652
.079759	-278.32	-291.21	89.9126	69.5074	138.059	79.1498	66.8283	49.9267
.159539	-278.60	-290.91	90.5767	69.6436	138.640	80.1457	66.8283	55.8502
.249525	-278.32	-291.35	90.9352	69.9705	137.595	80.3696	66.9238	51.9946
.329535	-277.98	-291.35	90.6166	69.7118	137.595	78.2026	66.9921	61.6219
.419241	-278.53	-291.50	90.3112	68.9487	137.641	75.5299	67.0877	66.4203
.499538	-278.53	-290.98	90.4041	69.3848	137.595	78.7013	67.1559	60.7983
.579538	-278.67	-292.02	91.0546	69.8344	135.245	79.4985	67.2516	59.8370
.669536	-278.32	-291.58	90.5103	69.4666	137.478	80.9415	67.0331	64.3652
.749539	-279.43	-287.55	89.9259	69.1531	137.618	73.0744	66.7054	58.3256
.838524	-278.25	-198.49	90.4041	69.7662	137.595	64.3710	65.2834	49.3750
.919080	-277.98	-98.882	86.0771	69.0850	137.478	68.0150	65.7211	51.9946
1.006104	-277.77	-70.776	81.8217	69.0169	119.722	72.7731	66.3774	53.9232
1.087517	-277.77	-61.124	78.7843	68.7851	100.915	73.3253	66.2817	53.9232
1.167518	-277.98	-51.569	77.7066	69.6572	86.9484	76.8799	66.4048	55.5750

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 43 LU 15 FROM 334/ 0 TO 336/95 FILE STARTING T.O.D. 10:57: 1.153349 T.C.V. ON T.O.D. 10:57: 1.153349

PARAMETER	T-12	T-14	T-15	T-16	T-17	T-18	T-19	PFJ-HF	POJ
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA	COUNTS
NEFF/ADC	81/217	82/220	83/221	84/224	85/225	86/232	87/233	19/ 49	30/ 80
.000000	567.404	818.364	941.379	440.304	428.513	837.915	472.004	1047.00	6904.00
.079759	561.430	812.543	940.348	435.960	424.160	830.682	467.688	1047.08	6916.00
.159539	559.571	808.403	941.508	437.590	426.745	832.620	469.847	1047.08	6905.00
.249525	561.032	801.155	941.379	437.046	425.521	820.731	467.688	1047.08	6912.00
.329535	561.165	806.980	944.990	438.811	426.337	830.682	472.004	1047.00	6913.00
.419241	560.368	800.249	942.282	437.182	427.697	814.655	474.700	1046.84	6913.00
.499538	557.578	800.120	942.798	439.354	427.425	818.792	471.600	1047.74	6912.00
.579538	564.219	803.227	947.568	438.132	430.824	827.710	472.678	1047.74	6923.00
.669536	567.006	805.945	943.700	439.218	430.552	825.514	471.600	1047.66	6912.00
.749539	683.851	898.253	1119.45	454.800	448.736	851.212	483.721	1036.74	6284.00
.838524	599.711	693.348	797.429	222.164	182.073	498.805	199.772	73.5181	1072.00
.919080	411.971	501.657	560.167	125.074	114.282	189.743	118.101	23.1725	633.000
1.006104	316.568	399.175	448.334	84.7933	85.8819	108.470	82.8483	10.6066	397.000
1.087517	268.475	336.037	380.982	72.6806	74.4573	83.1194	67.1689	10.1139	307.000
1.167518	244.089	302.066	346.770	73.7724	75.5483	82.4406	66.2105	12.4135	297.000

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 42 LU 15 FROM 331/ 0 TO 333/95 FILE STARTING T.O.D. 10:56:56.833504 T.C.V. ON T.O.D. 10:56:56.833504

PARAMETER	WL02-1	WH20P-1	WH20C-1	TOFM	POV	F-B	FCALB 31941B	PFV-2							
PARAMETER	WL02-2	WH20P-2	WH20C-2	PGOT	PSIA	F-A	FCALA 31941A	PFV-1							
UNITS	LR-W	LR-W	LB-W	LB-W	LB-W	DEG F	PSIA	PSIA							
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32	13/ 33	15/ 41	16/ 44	17/ 45	18/ 48	20/ 56	21/ 57
.000000	4.39913	4.41525	13.8627	14.0882	11.2519	11.0842	-293.90	857.308	803.238	1429.57	1416.30	.536317	-.38224	1346.19	1345.47
.080150	3.38813	3.40761	13.8627	14.0743	11.2938	11.1367	-294.22	855.309	795.238	1467.63	1473.39	.124425	-.38224	1361.93	1360.07
.160150	3.36611	3.37346	13.9864	14.1110	11.3092	11.1703	-294.51	854.078	795.853	1469.26	1474.01	-.08152	-.38224	1364.22	1362.25
.249933	3.36701	3.37346	13.9649	14.0900	11.3566	11.1747	-295.02	853.309	794.007	1468.85	1473.39	.330371	-.58839	1363.61	1362.09
.330148	3.37093	3.36825	14.0307	14.0935	11.2938	11.1834	-295.02	852.848	792.776	1468.45	1472.57	.124425	-.58839	1362.23	1360.69
.420136	3.35313	3.36012	13.9998	14.1075	11.3315	11.1747	-295.49	852.848	792.776	1470.90	1475.25	.536317	-.38224	1360.25	1359.14
.500153	3.35072	3.35524	13.9192	14.0830	11.3175	11.1776	-295.27	851.925	792.161	1468.45	1473.60	.330371	.236215	1358.41	1357.28
.580152	3.36369	3.36175	13.9541	14.0900	11.3064	11.1659	-295.91	851.618	795.699	1474.79	1479.99	.124425	-.58839	1357.04	1355.57
.671406	3.35162	3.35557	13.9286	14.0935	11.2785	11.1586	-296.29	851.771	793.853	1471.31	1476.69	-.08152	-.79454	1357.04	1355.41
.750156	3.36761	3.35166	13.8896	14.0830	11.2492	11.1411	-296.42	851.618	795.392	1473.77	1478.55	.124425	.236215	1357.04	1356.19
.840477	3.33231	3.34483	13.9017	14.0830	11.3050	11.1338	-297.02	851.618	792.161	1471.31	1476.69	-.08152	.236215	1357.19	1356.19
.920037	3.32055	3.32760	13.9151	14.1092	11.3050	11.1455	-297.24	851.618	792.469	1470.70	1475.25	.536317	.236215	1357.19	1356.19
1.007185	3.31663	3.33052	13.8520	14.1005	11.3161	11.1601	-297.56	851.771	792.469	1471.31	1475.87	.330371	.236215	1357.19	1356.34
1.089787	3.30546	3.31393	13.9111	14.0935	11.2994	11.1455	-297.72	851.771	790.007	1470.08	1475.04	.330371	.236215	1371.86	1370.79
1.169152	3.31391	3.32142	13.8358	14.0795	11.2994	11.1513	-298.45	851.771	793.084	1475.40	1479.99	.124425	-.58839	1367.58	1366.60

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7006'

EDIT RATIO 5 FILE NO. 42 LU 15 FROM 331/ 0 TO 333/95 FILE STARTING T.O.D. 10:56:56.833504 T.C.V. ON T.O.D. 10:56:56.833504

PARAMETER	PFVD	PFVC-1		PFJC		PGH20T		PH20-J		PC-1		PC-2		POJI		TFJ	
PARAMETER	PFJ	PFVC-2		PFVCD		PAO		PH20-OUT		PC-2		TFVI					
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F
NEFF/ADC	22/ 60	23/ 61	24/ 64	25/ 65	26/ 72	27/ 73	28/ 76	29/ 77	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	57/153	59/157	59/157	59/157
.000000	1095.18	1142.70	1380.96	1372.75	1012.96	1061.31	1277.47	626.806	1217.65	102.440	576.801	578.461	404.864	67.6409	77.4682	77.4682	77.4682
.080150	1105.27	1086.37	1380.50	1371.83	1036.36	1084.75	1276.03	628.811	1217.65	106.893	600.258	602.020	197.143	69.4806	71.7826	71.7826	71.7826
.160150	1083.69	1069.17	1380.81	1372.29	1036.88	1085.06	1276.03	623.721	1219.69	103.076	600.784	602.743	64.8039	69.1403	71.1439	71.1439	71.1439
.249933	1081.05	1066.29	1379.87	1371.05	1036.36	1084.59	1275.83	623.721	1218.67	102.280	600.048	601.916	49.6433	69.1130	71.2662	71.2662	71.2662
.330148	1079.81	1064.74	1379.25	1370.44	1035.54	1084.75	1276.03	623.721	1218.05	103.871	599.942	601.090	41.6419	68.7452	71.1846	71.1846	71.1846
.420136	1078.26	1062.99	1378.63	1369.82	1035.13	1083.82	1275.83	624.492	1217.65	104.030	600.573	601.606	37.8518	68.3908	70.8719	70.8719	70.8719
.500153	1076.71	1061.76	1378.01	1369.20	1034.51	1083.04	1275.83	625.572	1218.67	103.076	600.363	601.090	36.7990	68.3636	70.6951	70.6951	70.6951
.580152	1076.24	1060.93	1377.38	1368.59	1034.72	1083.04	1275.83	628.194	1218.87	109.439	603.834	602.743	36.5884	67.6817	70.4502	70.4502	70.4502
.671406	1075.31	1059.39	1377.07	1368.28	1034.31	1082.58	1276.03	627.269	1218.87	108.166	604.255	600.263	36.6937	67.2996	69.9603	69.9603	69.9603
.750156	1075.47	1059.59	1377.38	1368.12	1033.69	1082.11	1275.83	628.194	1219.48	110.711	606.990	600.263	36.5884	67.5180	69.9194	69.9194	69.9194
.840477	1075.31	1058.98	1377.23	1368.59	1033.59	1082.27	1276.03	625.263	1218.26	108.325	608.463	601.916	36.5884	67.2587	69.6744	69.6744	69.6744
.920037	1074.84	1058.15	1376.92	1368.28	1033.08	1081.64	1275.83	628.811	1218.67	108.166	610.882	603.673	36.5884	66.6031	69.1703	69.1703	69.1703
1.007185	1074.84	1058.25	1377.23	1368.28	1033.08	1082.42	1275.83	629.891	1218.87	110.711	611.092	608.632	36.4831	66.6168	69.1567	69.1567	69.1567
1.089787	1080.59	1063.92	1376.76	1368.12	1033.08	1081.64	1275.83	628.811	1218.87	110.870	611.303	611.112	14.0582	67.5726	69.4428	69.4428	69.4428
1.169152	1081.21	1064.23	1377.38	1368.12	1033.49	1082.42	1276.03	631.125	1219.69	111.347	615.300	615.452	14.5846	66.3026	69.0885	69.0885	69.0885

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106 CALIBRATION PERFORMED 09-22-78 10:11:19 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 42 LU 15 FROM 331/0 TO 333/95 FILE STARTING T.O.D. 10:56:56.833504 T.C.V. ON T.O.D. 10:56:56.833504

PARAMETER	TOBL	TAO	TFO	TFVC-1	T-3	T-6	T-9	T-11							
PARAMETER	TOJ	TIN	TFJC	T-2	T-4	T-7	T-10								
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F							
NEFF/ADC	60/160	61/161	62/168	63/169	69/185	71/189	72/192	73/193	74/200	75/201	76/204	77/205	78/208	79/209	80/216
.000000	-269.06	-263.91	71.0742	68.8533	70.8969	76.9797	65.7211	68.1998	1214.26	654.826	66.5355	1015.59	699.709	967.961	89.9795
.080150	-269.60	-269.99	75.5197	69.8616	71.0221	84.4143	65.6801	47.1671	1323.31	567.998	43.4873	841.370	778.360	1134.66	108.158
.160150	-269.67	-273.62	79.8204	69.7798	74.3716	85.6018	65.6118	49.7888	1352.21	597.927	13.3603	888.606	801.519	1181.15	123.115
.249933	-268.53	-274.84	83.1487	70.1475	107.492	83.4484	65.5161	62.1709	1348.66	640.505	-12.694	889.318	832.021	1198.12	131.220
.330148	-268.86	-277.14	84.3668	69.3985	123.739	81.6372	65.4476	55.0245	1327.77	653.513	-11.895	891.690	851.058	1189.03	129.495
.420136	-268.86	-278.38	85.6097	69.5347	129.849	80.2950	65.3929	62.8568	1354.84	664.011	-29.926	890.504	855.814	1216.29	137.050
.500153	-268.60	-279.35	85.1956	68.3896	131.745	76.3801	65.3929	66.4203	1362.61	663.224	-35.656	889.792	852.960	1217.49	135.196
.580152	-268.80	-279.56	86.4774	69.3167	133.030	79.2744	65.2834	55.8502	1359.71	662.437	-21.269	895.247	863.422	1223.24	134.931
.671406	-268.80	-281.23	86.9442	69.1260	133.823	79.3740	65.2149	53.6477	1355.63	666.109	-13.762	884.574	866.988	1230.66	137.976
.750156	-268.60	-282.28	87.4241	69.4393	134.616	79.6230	65.1739	54.8868	1363.40	669.125	-24.775	888.132	865.086	1237.85	135.991
.840477	-268.26	-283.12	87.2242	69.1260	135.315	78.4769	65.2971	57.2257	1381.73	669.911	-23.695	883.388	861.998	1230.42	135.196
.920037	-268.06	-283.76	87.9037	69.4393	135.920	79.9217	65.0643	60.5237	1396.66	681.962	-27.754	890.741	872.692	1226.59	138.109
1.007185	-267.33	-284.18	87.6906	69.0986	136.130	77.1796	65.0643	59.2875	1417.32	681.308	-30.470	893.824	875.544	1230.66	137.050
1.089787	-267.79	-284.90	88.0768	69.4938	136.967	78.4271	65.1191	61.0729	1403.81	669.387	-27.482	879.592	855.576	1227.07	137.976
1.169152	-267.53	-285.25	88.0635	69.4257	132.563	80.0959	65.0781	62.7197	1407.25	674.760	-31.287	884.337	864.135	1221.80	141.283

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#106

CALIBRATION PERFORMED 09-22-78 10:11:19

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 5 FILE NO. 42 LU 15 FROM 331/ 0 TO 333/95 FILE STARTING T.O.D. 10:56:56.833504 T.C.V. ON T.O.D. 10:56:56.833504

PARAMETER	T-12	T-15	T-17	T-19	POJ
PARAMETER	T-14	T-16	T-18	PFJ-HF	
UNITS	DEG F	DEG F	DEG F	DEG F	PSIA
NEFF/ADC	81/217	82/220	83/221	84/224	85/225
.000000	466.935	552.917	592.243	379.180	333.154
.080150	491.446	717.368	829.262	407.095	417.623
.160150	528.543	755.115	894.191	433.787	423.343
.249933	540.146	781.074	915.079	439.218	420.756
.330148	539.746	794.940	912.371	434.331	421.845
.420136	548.269	801.803	930.292	433.787	425.521
.500153	548.269	801.544	931.323	430.526	425.657
.580152	549.466	808.792	937.898	432.972	428.649
.671406	547.204	810.603	940.735	431.477	426.201
.750156	550.531	808.921	944.474	434.874	425.793
.840477	547.337	806.462	941.508	432.700	425.657
.920037	551.544	813.608	944.122	431.789	428.377
1.007185	553.989	816.424	942.411	432.293	430.960
1.089787	550.930	807.368	940.735	431.070	428.377
1.169152	555.185	813.708	940.735	433.787	432.455

END FILE

300



TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#107

CALIBRATION PERFORMED 10-03-78 16:17:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 10 FILE NO. 288 LU 15 FROM 14/ 0 TO 36/95 FILE STARTING T.O.D. 17: 1:25.408852 T.C.V. ON T.O.D. 17: 1:25.592319

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-R	FCALB 31941R	PFV-2
PARAMETER	WLO2-2	WH20P-2	WH20C-2	PGOT	F-A	F-B	FCALA 31941A	PFV-1
UNITS	LR-W	LR-W	LR-W	DEG F	PSIA	LBS	LBS	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32
-183469	2.94962	2.96183	13.5225	13.7182	11.3155	11.1785	-284.88	854.154
-020530	2.40891	2.39363	13.5682	13.7007	11.2638	11.1669	-284.91	853.693
152001	-02187	1.66696	13.5064	13.6972	11.2861	11.1669	-285.33	856.767
324185	-00980	0.74598	13.5709	13.7077	11.2806	11.1669	-285.61	857.997
498267	-00135	0.78178	13.6462	13.7042	11.2359	11.1683	-285.77	858.766
671679	4.65050	4.67588	13.5507	13.6867	11.3266	11.1800	-286.09	856.152
843151	3.35032	3.36211	13.5763	13.6832	11.3364	11.2194	-286.28	853.539
1.006764	3.37718	3.38229	13.5413	13.6675	11.3755	11.2427	-286.89	853.078
1.179700	3.36722	3.37415	13.5171	13.6605	11.3364	11.2252	-287.72	853.078
1.351116	3.37687	3.37025	13.4862	13.6727	11.3475	11.2325	-288.87	853.078
1.524858	3.34067	3.35593	13.3948	13.6622	11.3252	11.2136	-289.86	853.232
1.695836	3.33584	3.34909	13.3464	13.6482	11.3364	11.2194	-291.04	853.232
1.867477	3.33886	3.33770	13.5104	13.6482	11.3587	11.2136	-292.06	853.232
2.031782	3.33584	3.33445	13.3666	13.6692	11.3601	11.2165	-292.95	853.385
2.204658	3.33131	3.32501	13.4432	13.6640	11.3210	11.1917	-293.59	853.232
2.376816	3.32166	3.32436	13.3639	13.6570	11.3308	11.2136	-294.29	853.385
2.548366	3.31985	3.32534	13.4015	13.6272	11.3155	11.1858	-295.12	853.232
2.720281	3.32498	3.32208	13.4311	13.6325	11.3252	11.1917	-295.79	853.232
2.890861	3.31411	3.31850	13.4849	13.6307	11.3141	11.2033	-296.01	853.232
3.055428	3.32618	3.31818	13.3962	13.6412	11.3364	11.1917	-296.52	853.385
3.228691	3.31351	3.32176	13.5937	13.6342	11.3475	11.1917	-296.77	853.232
3.401210	3.31562	3.31915	13.4634	13.6482	11.3196	11.1902	-297.32	853.539
3.571446	3.30265	3.30907	13.3773	13.6412	11.3196	11.1785	-297.41	853.385
3.744299	3.31653	3.31915	13.5010	13.6202	11.2596	11.1800	-297.92	853.385
3.914468	3.30385	3.30418	13.5064	13.6342	11.2917	11.1902	-297.82	853.232
4.081639	3.30838	3.31037	13.4634	13.6220	11.3085	11.1800	-298.17	853.232
4.252008	3.31200	3.31655	13.3612	13.6290	11.2931	11.1990	-298.43	853.385
4.425101	3.30506	3.30614	13.5118	13.6342	11.3392	11.2004	-298.59	853.232
4.596449	3.30959	3.31069	13.4580	13.6150	11.2917	11.1625	-298.68	853.232
4.768813	3.30929	3.30516	13.4271	13.6220	11.3029	11.1858	-298.75	853.539
4.939272	3.32135	3.30679	13.5440	13.6202	11.2806	11.1785	-299.29	853.232
5.102854	3.30235	3.30288	13.3397	13.6237	11.2931	11.1713	-298.91	853.693
5.275157	3.30747	3.31167	13.3666	13.6517	11.3085	11.1902	-299.00	853.385
5.449131	3.29239	3.29605	13.4768	13.6832	11.3308	11.1902	-299.07	853.693
5.621551	3.30325	3.30028	13.3881	13.6762	11.3601	11.2048	-299.16	853.385
5.794800	2.60202	2.51827	13.5763	13.6762	11.3587	11.2150	-299.32	853.847
5.966604	0.878508	0.622626	13.5884	13.7007	11.3755	11.2092	-299.19	856.460
6.132435	0.705010	0.669488	13.5561	13.7182	11.3210	11.2004	-299.19	857.997
6.304857	0.576773	0.572835	13.5588	13.7409	11.3364	11.1873	-299.13	858.612
6.478585	0.492287	0.476182	13.5507	13.7356	11.3531	11.1917	-299.42	858.766
6.653311	0.441595	0.488548	13.4876	13.7566	11.2959	11.2033	-299.32	859.227
6.825893	0.378835	0.386688	13.5279	13.7601	11.3266	11.2063	-299.07	859.380
6.997925	0.266589	0.346660	13.6368	13.7811	11.3141	11.2194	-299.10	859.380
7.163034	0.275339	0.336897	13.5548	13.7898	11.3838	11.2325	-299.03	859.380
7.335863	0.391809	0.425414	13.6717	13.7776	11.3587	11.2413	-298.94	859.842
7.508488	0.227364	0.354145	13.7430	13.7724	11.4145	11.2252	-299.07	859.842
7.681326	0.148611	0.208351	13.6583	13.7881	11.3587	11.2559	-298.84	859.842
7.854631	0.111799	0.309560	13.6784	13.7951	11.3489	11.2500	-299.07	859.842
8.026155	0.100333	0.315418	13.6636	13.8038	11.3978	11.2632	-298.68	859.842

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#107 CALIBRATION PERFORMED 10-03-78 16:17:56 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 10 FILE NO. 288 LU 15 FROM 14/ 0 TO 36/95 FILE STARTING T.O.D. 17: 1:25.408852 T.C.V. ON T.O.D. 17: 1:25.592319

PARAMETER	WLO2-1	WH20P-1	WH20C-1	TOFM	POV	F-B	FCALB 31941B	PFV-2
PARAMETER	WLO2-2	WH20P-2	WH20C-2	PGOT	F-A	FCALA 31941A	PFV-1	
UNITS	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	LB-W	PSIA
NEFF/ADC	4/ 12	5/ 13	6/ 16	7/ 17	8/ 24	9/ 25	10/ 28	12/ 32
8.194076	.127791	.170275	13.6085	13.8266	11.3810	11.2398	-298.56	859.842
8.368642	.074987	.139034	13.8169	13.8196	11.3755	11.2486	-298.68	859.842
8.540523	.078307	.139685	13.5776	13.8108	11.4145	11.2807	-298.52	859.842
8.714874	.076194	.300123	13.6085	13.8301	11.3992	11.2675	-298.49	859.842
8.887172	.122058	.131549	13.7161	13.8196	11.4034	11.2632	-298.30	859.842
9.060282	.074686	.148146	13.6032	13.8370	11.4089	11.2967	-298.43	859.380

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#107 CALIBRATION PERFORMED 10-03-78 16:17:56 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 10 FILE NO. 288 LU 15 FROM 14/ 0 TO 36/95 FILE STARTING T.O.D. 17: 1:25.408852 T.C.V. ON T.O.D. 17: 1:25.592319

PARAMETER	PFVD	PFJ	PFVC-1	PFVC-2	PFJC	PFVCD	PGH20T	PAQ	PH20-J	PH20-OUT	PC-1	PC-2	POJI	TFV1	TFJ
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F
NEFF/ADC	22/ 60	23/ 61	24/ 64	25/ 65	26/ 72	27/ 73	28/ 76	29/ 77	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	57/153	59/157
-183469	1439.75	14.8584	1392.15	1384.06	14.5000	1384.11	1198.46	592.612	1142.91	92.2144	14.5658	14.5000	14.5483	82.9944	83.9345
-020530	1439.13	14.4464	1391.37	1383.14	14.5000	1383.80	1197.23	589.368	1142.09	90.3034	14.2500	14.5000	14.4430	83.0748	83.9345
.152001	1407.98	21.3481	1391.37	1383.29	105.687	1383.65	1196.82	588.595	1141.68	89.8256	14.5658	14.5000	393.093	82.2439	84.1219
.324185	1394.35	25.3655	1370.19	1361.08	803.140	1340.78	1195.99	587.514	1141.27	90.9404	15.9343	15.8408	394.357	79.7728	83.0242
.498267	1399.92	30.9281	1374.24	1365.55	1006.87	1046.73	1195.17	588.595	1141.48	91.0996	17.3027	17.2847	405.314	79.6921	81.6570
.671679	1280.29	485.925	1370.50	1361.85	997.323	1036.94	1194.35	587.977	1139.64	89.8256	209.726	217.058	407.105	75.8632	96.3668
.843151	1077.12	1064.12	1370.19	1360.61	1047.95	1086.65	1193.94	592.148	1140.05	94.7624	597.730	598.040	66.9103	81.4657	79.9112
1.006764	1067.97	1054.85	1369.57	1361.08	1045.89	1085.25	1193.53	590.294	1138.41	94.2846	597.099	597.833	42.1516	82.4047	83.0912
1.179700	1067.04	1052.90	1370.19	1361.08	1045.07	1084.16	1192.91	591.376	1137.39	93.9661	597.836	598.452	36.7785	81.5999	82.6626
1.351116	1064.72	1050.11	1370.19	1361.08	1044.35	1083.85	1192.29	588.595	1138.00	94.7624	598.467	598.762	36.4624	80.9555	82.0862
1.524858	1063.01	1047.64	1369.72	1361.54	1043.94	1083.23	1191.88	589.059	1136.78	96.6734	599.204	600.309	36.2517	80.6331	81.6973
1.695836	1063.32	1047.85	1370.19	1361.54	1043.63	1083.07	1191.06	592.148	1135.96	96.6734	599.941	600.721	35.9356	80.3643	81.5228
1.867477	1073.40	1057.12	1370.19	1361.54	1043.94	1083.39	1190.44	586.124	1135.75	96.0364	602.783	603.300	14.1269	80.5928	81.8984
2.031782	1070.14	1053.82	1370.19	1361.69	1043.84	1083.39	1190.24	591.067	1135.96	96.6734	602.888	603.196	14.2322	79.4095	80.8517
2.204658	1067.51	1051.14	1370.19	1361.54	1043.53	1083.07	1189.42	585.969	1135.14	94.7624	602.152	602.371	14.1269	78.8845	80.2607
2.376816	1065.96	1049.60	1370.19	1361.69	1043.53	1083.07	1189.42	589.831	1135.55	96.0364	601.941	602.062	14.2322	78.6962	79.9382
2.548366	1066.42	1049.91	1370.19	1361.69	1043.53	1083.07	1189.21	587.205	1133.50	94.7624	602.888	602.784	14.3376	78.3190	79.7095
2.720281	1067.04	1050.11	1370.19	1361.69	1043.74	1083.39	1188.80	586.124	1133.91	95.0809	603.415	601.546	14.3376	78.0225	79.3464
2.890861	1066.27	1049.60	1370.19	1361.38	1043.43	1083.07	1188.59	589.213	1132.69	96.0364	602.783	603.196	14.2322	77.5911	78.9158
3.055428	1066.58	1050.01	1370.19	1361.54	1043.53	1083.39	1187.77	587.668	1134.32	96.0364	602.678	608.972	14.2322	77.1864	78.5388
3.228691	1067.04	1050.32	1370.19	1361.69	1043.84	1083.54	1187.57	588.441	1133.30	96.3549	603.836	613.304	14.2322	76.7141	78.2156
3.401210	1067.35	1050.11	1370.19	1361.69	1043.84	1083.54	1187.16	588.132	1132.28	96.1956	603.310	615.160	14.3376	76.4306	77.7574
3.571446	1067.04	1049.91	1370.19	1361.54	1043.43	1083.23	1186.95	587.977	1133.50	97.3104	602.888	615.676	14.3376	75.9037	77.3799
3.744299	1067.97	1050.53	1370.19	1361.69	1043.84	1083.54	1186.95	585.351	1131.66	94.4439	604.467	613.510	14.2322	75.4306	77.0293
3.914468	1067.66	1050.32	1370.19	1361.85	1043.63	1083.23	1186.95	586.124	1131.87	94.7624	603.204	609.385	14.6537	74.9844	76.5165
4.081639	1067.82	1050.63	1370.34	1361.85	1043.94	1083.54	1186.95	585.506	1133.50	96.0364	603.836	607.528	14.3376	74.5649	76.1250
4.252008	1068.28	1050.94	1370.19	1361.69	1043.94	1084.01	1186.54	584.115	1132.48	94.7624	604.573	606.909	14.2322	74.0098	75.6793
4.425101	1067.66	1050.53	1370.19	1361.69	1043.84	1083.39	1186.13	585.197	1133.50	96.0364	603.310	604.434	14.3376	73.6984	75.2468
4.596449	1068.28	1050.94	1370.19	1361.54	1043.94	1084.01	1186.13	582.880	1131.05	94.9216	604.046	604.434	14.3376	73.1291	74.8140
4.768813	1068.44	1051.25	1370.19	1361.69	1043.94	1083.70	1185.72	586.124	1131.46	96.6734	603.836	603.712	14.3376	72.7766	74.3541
4.939272	1068.28	1050.94	1369.72	1361.69	1043.84	1083.70	1185.72	585.351	1131.87	96.0364	604.257	603.815	14.2322	72.2202	73.9209
5.102854	1068.28	1051.14	1370.19	1361.54	1043.94	1083.70	1188.80	589.059	1132.48	94.7624	603.415	602.371	14.2322	71.7994	73.4874
5.275157	1068.90	1051.66	1369.72	1361.54	1044.05	1083.70	1191.88	586.124	1136.37	96.0364	604.573	603.815	14.2322	71.3511	73.0809
5.449131	1068.44	1051.25	1369.72	1361.54	1044.25	1084.01	1194.35	589.985	1139.02	95.3994	603.836	602.474	14.3376	70.7394	72.5250
5.621551	1068.90	1051.56	1370.19	1361.54	1044.25	1084.16	1195.99	589.368	1139.64	96.0364	603.836	602.784	14.3376	70.2635	72.0908
5.794800	1326.78	702.556	1411.62	1403.50	266.393	1417.82	1198.87	589.059	1140.46	94.1254	252.569	231.600	14.2322	72.0573	65.3320
5.966604	1444.71	30.6190	1401.81	1394.25	100.450	1395.14	1200.10	591.067	1145.36	93.4884	14.9869	13.3655	14.3376	77.2538	20.8282
6.132435	1444.09	20.2150	1392.62	1384.68	100.450	1385.51	1202.57	594.156	1145.77	93.4884	12.9868	11.6122	14.3376	77.3079	37.3132
6.304857	1442.85	20.4210	1390.75	1382.68	101.990	1383.49	1203.60	594.465	1146.59	91.7366	13.1974	11.6122	14.3376	77.4157	45.5075
6.478585	1442.70	20.7300	1392.00	1383.91	101.990	1384.74	1205.24	593.384	1148.43	92.2144	13.3026	11.5091	14.3376	77.4562	49.8445
6.653311	1442.70	20.8330	1392.77	1384.68	101.682	1385.51	1206.68	594.620	1150.48	93.4884	13.4079	11.5091	14.3376	77.5911	52.5743
6.825893	1442.70	21.1421	1393.24	1385.61	101.374	1386.13	1208.53	595.856	1151.91	91.2589	13.3026	11.6122	14.3376	77.6180	54.1854
6.997925	1442.70	21.1421	1393.55	1385.61	101.066	1386.29	1210.79	597.400	1153.95	95.0809	13.7237	11.8185	14.3376	77.5371	55.4748
7.163034	1442.70	21.1421	1393.24	1385.30	100.758	1386.29	1212.03	597.864	1154.77	93.4884	13.4079	11.6122	14.3376	77.5775	56.4301
7.335863	1442.70	21.1421	1393.24	1385.30	100.347	1386.13	1213.47	598.327	1156.20	93.4884	13.4079	11.6122	14.3376	77.6719	57.2873
7.508488	1442.23	21.1421	1393.24	1385.14	100.450	1385.67	1214.90	598.791	1156.82	92.8514	13.4079	11.7154	14.3376	77.8203	58.0609
7.681326	1442.70	21.1421	1392.62	1384.99	100.141	1385.51	1216.55	596.937	1158.66	91.5774	13.4079	11.9216	14.3376	77.8338	58.6683
7.854631	1442.23	21.1421	1392.62	1384.68	100.141	1384.89	1218.19	599.563	1159.27	93.4884	13.4079	11.7154	14.3376	77.9551	59.1795
8.026155	1442.70	21.4511	1392.00	1384.22	100.039	1384.74	1216.75	598.327	1160.50	92.2144	13.4079	11.7154	14.3376	78.0629	59.7574

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#107 CALIBRATION PERFORMED 10-03-78 16:17:56 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 10 FILE NO. 288 LU 15 FROM 14/ 0 TO 36/95 FILE STARTING T.O.D. 17: 1:25.408852 T.C.V. ON T.O.D. 17: 1:25.592319

PARAMETER	PFVD	PFVC-1		PFVC-2		PFJC	PGH20T		PH20-J		PC-1		PC-2		POJI	TFV1	TFJ
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F
NEFF/ADC	22/ 60	23/ 61	24/ 64	25/ 65	26/ 72	27/ 73	28/ 76	29/ 77	31/ 81	32/ 88	33/ 89	34/ 92	35/ 93	57/153	59/157		
8.194076	1442.85	21.4511	1392.00	1383.91	100.039	1384.27	1219.02	601.417	1160.70	92.5329	13.4079	11.7154	14.3376	78.0494	60.1294		
8.368642	1443.16	21.4511	1391.53	1383.76	99.9361	1383.96	1219.02	599.563	1161.72	92.2144	13.7237	11.7154	14.3376	78.2651	60.5975		
8.540523	1442.85	21.4511	1391.37	1383.29	99.9361	1383.80	1219.84	602.344	1162.13	96.0364	13.4079	11.7154	14.3376	78.3054	60.9278		
8.714874	1443.47	21.5541	1390.91	1383.14	99.9361	1383.49	1221.48	600.335	1163.36	93.6476	13.8290	11.8185	14.3376	78.4132	61.2441		
8.887172	1443.63	14.4464	1390.75	1382.68	15.4242	1383.18	1221.69	599.563	1163.57	91.7366	13.4079	11.6122	14.3376	78.4536	59.6885		
9.060282	1443.47	14.5494	1390.13	1382.21	13.7812	1383.18	1223.13	601.726	1164.59	91.5774	13.4079	11.7154	14.3376	78.5479	59.7023		
END FILE																	

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#107

CALIBRATION PERFORMED 10-03-78 16:17:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 10 FILE NO. 288 LU 15 FROM 14/ 0 TO 36/95 FILE STARTING T.O.D. 17: 1:25.408852 T.C.V. ON T.O.D. 17: 1:25.592319

PARAMETER	TORL	TAO	TFO	TFVC-1	T-3	T-6	T-9	T-12
PARAMETER	TOJ	TIN	TFJC	T-2	T-10	T-7	T-11	
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	60/160	61/161	62/168	63/169	69/185	71/189	72/192	73/193
74/200	75/201	76/204	77/205	78/208	80/216	81/217		
-183469	-274.96	-11.060	77.4927	75.3491	78.6481	89.0800	74.2691	83.4944
-0.020530	-270.65	-8.0463	77.4792	75.3896	78.6481	89.0800	74.3646	83.7675
.152001	-269.44	40.3552	77.4927	75.3761	78.7026	88.5696	74.3099	84.0405
.324185	-266.83	51.1625	77.5872	75.4032	78.9068	91.2791	81.6941	86.2233
.498267	-264.90	55.4024	77.5872	75.4302	78.7434	89.3484	80.2333	84.7228
.671679	-265.23	-253.30	77.6681	75.3355	78.7297	86.4714	78.8920	83.6309
.843151	-264.50	-265.28	84.3558	75.5114	81.4086	86.4175	77.6844	83.4944
1.006764	-264.50	-269.56	91.4024	75.4843	132.036	85.3933	77.0052	83.2213
1.179700	-263.97	-272.58	94.0383	75.3761	141.317	85.3663	76.2846	82.9481
1.351116	-264.23	-273.99	95.2014	75.3491	143.994	85.0966	75.9172	82.6750
1.524858	-263.70	-276.63	95.7955	75.4032	145.488	85.0697	75.4545	82.6750
1.695836	-263.44	-278.55	96.0859	75.3220	145.766	84.7188	75.2094	82.6750
1.867477	-263.30	-280.77	96.5080	75.3491	146.082	84.9348	74.8688	82.4017
2.031782	-263.04	-282.17	96.7058	75.4032	146.386	84.9348	74.9233	82.6750
2.204658	-263.64	-283.23	96.9957	75.2138	146.550	84.8673	74.9097	81.9918
2.376816	-265.43	-284.22	97.1540	75.3355	146.992	84.8673	74.9097	82.4017
2.548366	-266.83	-285.28	97.3121	75.2949	146.916	84.8943	74.9097	82.6750
2.720281	-267.97	-286.07	97.4307	75.4032	147.257	84.7998	74.9097	82.5383
2.890861	-269.51	-286.43	97.6546	75.3220	147.434	84.8268	75.0187	82.5383
3.055428	-270.44	-287.00	97.6810	75.3491	147.573	84.7728	75.0323	82.6750
3.228691	-272.26	-287.58	97.7468	75.4302	147.636	84.6514	75.1004	82.6750
3.401210	-273.81	-287.87	97.9048	75.3491	147.813	84.6379	75.1004	82.4017
3.571446	-275.21	-288.16	97.8917	75.3491	147.712	84.5839	75.1821	82.5383
3.744299	-276.51	-288.74	97.9575	75.4843	147.611	84.6109	75.2502	82.6750
3.914468	-277.40	-288.67	97.9969	75.4437	147.687	84.5433	75.2911	82.4017
4.081639	-278.43	-288.89	98.0628	75.5385	147.939	84.5298	75.4272	82.8115
4.252008	-278.92	-289.47	98.1154	75.4843	147.649	84.4219	75.5634	82.4017
4.425101	-279.54	-289.25	98.1812	75.4708	147.863	84.2194	75.5906	82.4017
4.596449	-279.61	-289.40	98.2603	75.5114	147.813	84.2194	75.7947	82.4017
4.768813	-279.89	-289.69	98.2603	75.5385	147.813	84.1248	75.8356	82.1285
4.939272	-280.16	-289.98	98.3656	75.5114	147.661	83.5574	75.9445	82.1285
5.102854	-280.16	-290.13	98.3392	75.4032	147.724	84.0438	76.0533	81.9918
5.275157	-280.44	-290.13	98.3787	75.5114	147.838	84.0033	76.2166	81.8552
5.449131	-280.16	-290.13	98.3392	75.3355	147.586	83.9493	76.4342	81.9918
5.621551	-280.37	-290.13	98.4313	75.5114	147.699	84.0438	76.5430	81.8552
5.794800	-279.61	-257.15	98.4050	75.4302	147.611	72.3751	74.8007	79.8042
5.966604	-279.33	-77.487	92.7147	75.3491	137.843	76.4055	74.8007	79.9410
6.132435	-279.26	-50.432	85.5454	75.4302	98.3062	80.9725	75.3456	80.7616
6.304857	-279.12	-31.288	82.2799	75.4032	85.8637	82.6110	75.5906	81.3085
6.478585	-279.05	-16.984	81.0320	75.4437	82.7111	82.9897	75.6722	81.8552
6.653311	-278.78	-7.4081	80.4543	75.5114	81.3544	82.9221	75.5634	81.8552
6.825893	-279.05	-1.13988	80.1049	75.3491	80.7568	82.7462	75.5089	81.9918
6.997925	-279.05	5.31641	79.7552	75.3491	80.3219	82.4487	75.5769	82.6750
7.163034	-279.19	9.45186	79.6746	75.3491	80.2267	82.2321	75.5089	82.8115
7.335863	-279.33	13.0570	79.3920	75.2949	79.3153	81.8801	75.4000	83.0847
7.508488	-279.82	16.1057	79.2574	75.3761	79.7778	81.5281	75.4545	83.6309
7.681326	-280.03	18.6414	79.1095	75.5114	79.7778	81.2841	75.4545	84.1770
7.854631	-280.44	20.8490	79.0421	75.3491	79.6691	80.9725	75.4545	84.5864
8.026155	-280.72	22.9114	78.8941	75.4032	79.5738	80.5928	75.4000	84.7228

TRANS REGEN WITH FULL TRANSPIRE & REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#107

CALIBRATION PERFORMED 10-03-78 16:17:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 10 FILE NO. 288 LU 15 FROM 14/ 0 TO 36/95 FILE STARTING T.O.D. 17: 1:25.408852 T.C.V. ON T.O.D. 17: 1:25.592319

PARAMETER	TOBL	TAO	TIN	TFO	TFJC	TFVC-1	T-2	T-3	T-10	T-6	T-7	T-9	T-11	T-12
PARAMETER	TOJ													
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	60/160	61/161	62/168	63/169	69/185	71/189	72/192	73/193	74/200	75/201	76/204	77/205	78/208	80/216
8.194076	-280.72	24.5040	78.8403	75.4032	79.5602	80.3622	75.4000	85.2686	167.766	198.423	4.91660	170.272	185.521	106.889
8.368642	-280.72	26.0255	78.7459	75.2679	79.5193	80.0909	75.4545	85.6778	163.007	189.945	10.9239	164.951	178.739	104.338
8.540523	-280.72	27.4035	78.7189	75.3491	79.4514	79.8738	75.1276	86.2233	157.716	183.858	15.3430	160.354	172.927	103.801
8.714874	-280.93	28.4928	78.6247	75.4032	79.4377	79.5209	75.4545	86.7685	153.480	177.245	19.7452	154.784	167.114	102.322
8.887172	-280.86	1.96732	78.5978	75.3761	79.3833	77.4271	75.3728	87.0412	149.771	171.689	23.1008	150.905	163.237	100.977
9.060282	-280.72	-8.1965	78.5844	75.1867	79.3697	77.6041	75.3591	87.1774	146.058	167.191	26.1906	147.509	158.388	100.977

END FILE

## TRANS REGEN WITH FULL TRANSPIRE &amp; REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#107

CALIBRATION PERFORMED 10-03-78 16:17:56

CAL DECK FILE NAME 'TR7046'

EDIT RATIO 10 FILE NO. 288 LU 15 FROM 14/ 0 TO 36/95 FILE STARTING T.O.D. 17: 1:25.408852 T.C.V. ON T.O.D. 17: 1:25.592319

PARAMETER	T-14	T-15	T-16	T-17	T-18	T-19	PFJ-HF	POJ
PARAMETER	T-14	T-15	T-16	T-17	T-18	T-19	PFJ-HF	POJ
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA	PSIA
NEFF/ADC	82/220	83/221	84/224	85/225	86/232	87/233	19/ 49	30/ 80
- .183469	79.0416	78.9258	76.2776	76.5815	76.0533	76.4474	14.6338	14.4830
- .020530	79.1778	78.9258	76.2776	77.5396	76.6011	76.9950	14.6338	14.4830
.152001	79.1778	78.7897	76.6048	77.5396	76.0533	76.8581	23.1925	54.6247
.324185	79.1778	78.7897	76.5515	76.3076	76.3272	77.2687	27.4719	53.2935
.498267	76.9986	75.9283	76.2776	76.3076	76.0533	76.4474	33.2326	52.9863
.671679	217.135	195.376	250.069	212.435	749.307	226.944	540.667	637.909
.843151	931.079	983.519	502.031	433.291	894.788	500.404	1084.15	718.193
1.006764	968.347	1038.58	512.266	440.657	890.641	505.792	1058.39	716.554
1.179700	983.695	1054.69	515.494	442.838	894.399	507.677	1048.68	716.452
1.351116	976.472	1054.56	514.956	442.293	901.266	507.946	1041.85	716.657
1.524858	975.570	1061.26	517.376	443.110	910.077	510.503	1036.58	717.886
1.695836	986.790	1065.52	519.795	445.154	914.611	510.906	1034.69	717.886
1.867477	991.948	1067.71	520.870	444.064	916.683	510.906	1042.01	720.753
2.031782	1002.55	1062.81	519.795	445.835	913.445	509.964	1036.58	719.934
2.204658	994.141	1058.69	521.944	444.064	918.238	508.753	1032.14	719.114
2.376816	995.172	1050.82	521.407	446.243	922.254	507.273	1029.17	718.602
2.548366	999.686	1056.62	521.944	445.290	918.109	509.426	1028.10	719.831
2.720281	1003.58	1064.10	523.556	445.290	921.865	510.772	1027.69	719.934
2.890861	1006.54	1066.94	522.079	446.788	924.845	510.503	1026.21	719.422
3.055428	1003.19	1062.17	523.556	445.835	917.590	508.753	1026.05	718.602
3.228691	1005.77	1062.17	522.482	446.107	922.772	506.331	1025.88	720.343
3.401210	1002.42	1059.72	523.019	445.835	918.627	507.946	1025.39	719.422
3.571446	999.815	1062.42	522.616	444.200	913.834	508.484	1025.06	718.193
3.744299	1005.77	1066.42	522.750	446.515	925.881	509.426	1025.88	720.446
3.914468	992.593	1062.94	523.019	445.835	907.615	509.561	1025.39	718.500
4.081639	995.817	1065.00	522.482	445.154	911.890	509.023	1025.88	718.398
4.252008	997.107	1062.94	523.556	446.107	916.165	507.273	1026.46	720.241
4.425101	991.046	1062.42	522.482	446.243	918.238	507.408	1026.05	718.193
4.596449	994.012	1063.46	521.944	445.835	914.093	510.637	1026.79	719.012
4.768813	993.625	1068.23	523.556	446.788	913.445	508.753	1027.12	719.012
4.939272	995.430	1068.61	521.944	445.835	916.554	509.023	1027.20	719.831
5.102854	987.048	1067.45	522.482	446.652	909.299	509.426	1027.20	717.783
5.275157	992.335	1064.49	521.542	445.835	907.226	508.484	1027.69	720.446
5.449131	990.401	1064.10	521.944	445.290	901.137	507.811	1027.53	718.193
5.621551	992.335	1064.87	521.542	446.788	919.663	509.830	1027.86	718.193
5.794800	1016.85	1099.19	458.183	384.750	825.389	424.253	673.739	313.703
5.966604	533.354	529.936	118.012	97.2795	181.496	117.356	4.26452	68.3467
6.132435	374.035	382.721	79.0152	78.6340	85.2088	80.0039	- .26173	43.1557
6.304857	299.691	312.300	77.3731	77.5396	77.8331	77.8161	3.35927	43.1557
6.478585	255.587	267.510	77.3731	77.4027	78.2436	77.8161	5.74584	43.5653
6.653311	226.689	237.111	76.8254	77.2659	76.7380	77.2687	7.55635	43.5653
6.825893	206.028	214.914	76.8254	76.9922	76.6011	77.4056	8.95537	43.5653
6.997925	190.345	199.197	76.5515	76.9922	76.7380	77.1319	10.1898	43.5653
7.163034	178.770	186.425	76.8254	76.9922	77.1488	77.2687	10.8482	43.6677
7.335863	168.644	175.509	76.4145	76.8553	76.1902	76.9950	11.5888	43.7701
7.508488	159.828	166.434	76.4145	76.8553	76.7380	77.1319	12.3295	43.5653
7.681326	152.977	159.195	76.5515	75.8968	76.6011	77.1319	12.9879	43.9749
7.854631	146.644	152.606	76.5515	76.9922	76.7380	76.9950	13.5639	43.5653
8.026155	141.359	146.933	76.4145	76.8553	76.7380	77.1319	14.1400	43.9749

TRANS REGEN WITH FULL TRANSPIRE & REGENERATIVE COOLING

TEST NUMBER TRANS-REGEN RUN#107 CALIBRATION PERFORMED 10-03-78 16:17:56 CAL DECK FILE NAME 'TR7046'

EDIT RATIO 10 FILE NO. 288 LU 15 FROM 14/ 0 TO 36/95 FILE STARTING T.O.D. 17: 1:25.408852 T.C.V. ON T.O.D. 17: 1:25.592319

PARAMETER	T-14	T-15	T-16	T-17	T-18	T-19	PFJ-HF	POJ
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA	PSIA
NEFF/ADC	82/220	83/221	84/224	85/225	86/232	87/233	19/ 49	30/ 80
8.194076	137.124	141.515	76.5515	76.8553	77.1488	77.2687	14.4692	43.9749
8.368642	132.884	137.678	76.2776	76.8553	76.3272	77.2687	14.9629	44.1797
8.540523	128.902	133.836	76.4145	76.8553	76.6011	76.9950	15.2098	44.2821
8.714874	125.978	129.988	76.2776	76.8553	76.6011	76.8581	15.5390	44.3845
8.887172	122.651	126.932	76.2776	76.8553	76.1902	76.8581	7.72094	14.4830
9.060282	119.986	124.139	76.2776	76.7184	76.6011	76.9950	8.05012	14.4830

END FILE



LOW RESPONSE FORCE CALIBRATION	10-03-78	17:05:02	SUMMARY DELAY	.50	TR7046
--------------------------------	----------	----------	---------------	-----	--------

SET POINTS	.000	1400.000
FCALA 31941ALRS	.179083	1538.353027
FCALB 31941BLRS	.020874	1541.686523
FS-AVG.		1540.019775
FS-PCT. DIFF.(A-B/A)		-.216693

F-A	LBS	71.432632	1488.995117
FA-BIAS			1.034268

F-B	LBS	71.015686	1493.484619
FB-BIAS			1.031159

LOW RESPONSE FORCE CALIBRATION 10-03-78 17:05:20 SUMMARY DELAY .50 TR7046

SET POINTS	.000	1400.000
FCALA 31941ALBS	.473465	1540.355225
FCALB 31941BLBS	.069989	1543.935547
FS-AVG.		1542.145508
FS-PCT. DIFF.(A-B/A)		-.232435

F-A	LBS	68.770447	1489.356201
FA-BIAS			1.035444

F-B	LBS	68.383774	1493.808594
FB-BIAS			1.032358

APPENDIX C

TRANS-REGEN TEST DATA - SECOND SERIES



TRANSPARATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A	PC-1		PC-2		POJI		POJ		POFM		PGOT		WLO2-1		WLO2-2		PFJ		PFVD		PFV-1		PFV-2		PGFT	
PARAMETER	F-B	PSIA		PSIA		PSIA		PSIA		PSIA		PSIA		LB-W		LB-W		PSIA		PSIA		PSIA		PSIA		PSIA	
UNITS	LBS	41	44	89	92	93	40	33	32	32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49										
NEFF/ADC																											
-.245676	67.2497	67.1127	14.3610	14.3756	14.9302	15.7192	811.734	847.039	2.91960	2.89690	14.1259	1475.88	1461.55	1459.76	13.3158												
-.227491	67.4594	67.1127	14.4801	14.3756	14.1790	13.7211	810.477	847.039	2.92201	2.89690	14.0206	1475.88	1460.12	1459.92	13.3158												
-.209285	67.2497	67.1127	14.4801	14.3756	14.9302	15.7192	807.647	846.202	2.92231	2.89690	13.9153	1475.88	1460.12	1459.92	15.5324												
-.200409	66.4111	67.1127	14.3610	14.3756	14.9302	14.8779	806.809	847.039	2.92351	2.89887	14.3365	1475.88	1461.55	1459.76	13.3158												
-.190053	67.2497	67.1127	14.3610	14.3756	14.9302	14.8779	807.962	846.202	2.92922	2.90184	14.3365	1475.88	1460.12	1459.92	13.3158												
-.184933	67.4594	67.3237	14.4801	14.3756	14.9302	13.9315	810.267	847.039	2.93403	2.90941	14.1259	1475.88	1460.12	1460.40	13.3158												
-.179813	65.7822	65.4249	14.3610	14.3756	14.1790	14.8779	810.896	847.039	2.93884	2.91237	14.3365	1475.88	1462.81	1459.92	13.3158												
-.174693	67.2497	67.1127	14.4801	14.3756	14.1790	15.7192	811.315	847.039	2.93884	2.91237	14.0206	1475.88	1461.55	1459.92	14.8991												
-.169573	67.4594	67.1127	14.3610	14.3756	14.1790	13.9315	811.734	847.039	2.93884	2.91237	14.3365	1475.88	1462.81	1460.40	13.3158												
-.164453	66.8304	67.1127	14.1227	14.3756	14.1790	15.7192	811.525	847.039	2.93403	2.90941	14.0206	1475.88	1462.81	1459.92	13.3158												
-.159333	67.4594	67.1127	14.4801	14.3756	14.1790	13.9315	811.525	847.039	2.92922	2.90710	14.3365	1475.88	1461.55	1459.92	15.5324												
-.154213	67.4594	67.1127	14.4801	14.3756	14.9302	13.7211	810.896	847.039	2.92411	2.90447	14.3365	1475.88	1461.55	1459.92	15.5324												
-.149093	65.7822	67.1127	14.4801	14.3756	14.9302	14.8779	811.734	847.039	2.92411	2.90447	14.3365	1475.88	1460.12	1461.04	13.3158												
-.143973	66.4111	67.1127	14.1227	14.3756	14.1790	14.8779	811.839	847.039	2.92321	2.90414	13.5993	1475.88	1460.12	1461.04	13.3158												
-.138853	67.4594	67.1127	14.4801	14.3756	14.1790	13.9315	811.839	846.202	2.92231	2.90611	14.3365	1475.88	1460.12	1460.40	13.3158												
-.133733	67.4594	67.1127	15.0757	14.3756	14.9302	13.9315	811.839	847.039	2.92201	2.90184	14.3365	1475.88	1460.12	1459.92	13.3158												
-.117050	67.4594	67.3237	14.3610	14.3756	14.9302	13.7211	811.734	845.365	2.91960	2.89887	14.1259	1475.88	1459.81	1458.65	13.3158												
-.111930	67.4594	67.1127	14.3610	14.3756	14.1790	13.9315	811.839	846.202	2.91960	2.89887	14.0206	1475.88	1460.12	1459.92	13.3158												
-.106810	67.4594	67.1127	14.3610	14.3756	14.9302	13.9315	811.839	847.039	2.91960	2.89887	14.3365	1476.52	1460.12	1460.72	13.3158												
-.101690	67.4594	67.1127	14.3610	14.3756	14.1790	13.9315	812.678	847.039	2.91720	2.89690	14.3365	1475.88	1460.12	1460.72	13.3158												
-.096570	67.4594	67.1127	14.4801	14.3756	14.1790	13.9315	811.839	847.039	2.91960	2.89887	14.3365	1475.88	1461.55	1459.92	13.3158												
-.091450	67.2497	67.1127	14.4801	14.3756	14.1790	15.7192	811.839	847.039	2.91960	2.89920	14.1259	1475.88	1461.55	1459.92	14.8991												
-.086330	67.4594	67.1127	14.4801	14.3756	14.9302	13.9315	811.734	847.039	2.91960	2.89920	14.1259	1475.88	1460.12	1461.04	13.3158												
-.081210	67.4594	67.1127	14.3610	14.3756	14.1790	13.9315	810.896	847.039	2.91720	2.89887	14.3365	1475.88	1460.12	1461.04	13.3158												
-.076090	67.4594	67.1127	14.3610	14.3756	14.9302	13.9315	810.686	847.039	2.91960	2.90085	14.3365	1475.88	1462.81	1459.92	13.3158												
-.070970	67.4594	67.1127	14.4801	14.3756	14.1790	13.9315	810.477	847.039	2.91960	2.90151	13.5993	1475.88	1460.12	1461.04	13.3158												
-.065850	67.4594	67.1127	14.4801	14.3756	14.1790	13.9315	810.896	847.039	2.91960	2.90184	14.1259	1475.88	1460.12	1460.40	13.3158												
-.060730	67.2497	67.1127	14.3610	14.3756	14.1790	15.7192	811.315	847.039	2.91960	2.90184	14.3365	1475.88	1460.12	1461.04	13.3158												
-.044232	67.4594	67.3237	14.4801	14.3756	14.9302	13.9315	816.974	845.365	2.91479	2.89097	14.1259	1475.88	1459.81	1458.65	13.3158												
-.039112	67.2497	67.1127	14.4801	14.3756	14.1790	14.8779	828.607	846.202	2.90036	2.87287	14.1259	1475.88	1460.12	1459.92	15.5324												
-.033992	69.1366	67.1127	14.4801	14.3756	14.1790	13.9315	851.138	847.039	2.86218	2.83370	14.3365	1475.88	1460.12	1459.92	14.8991												
-.028872	67.4594	67.1127	14.4801	14.3756	14.1790	14.8779	872.203	847.039	2.78492	2.74943	14.1259	1475.88	1460.12	1461.04	13.3158												
-.023752	67.4594	67.1127	14.3610	14.3756	14.9302	15.7192	884.674	847.039	2.65023	2.60689	14.3365	1476.52	1461.55	1459.76	13.3158												
-.018632	69.1366	67.1127	15.0757	14.3756	14.9302	13.9315	885.512	847.039	2.46504	2.41564	14.3365	1475.88	1460.12	1461.19	13.3158												
-.013512	67.4594	67.1127	15.0757	14.3756	14.9302	13.9315	879.643	847.039	2.23655	2.18522	14.1259	1475.88	1460.12	1461.04	13.3158												
-.008392	67.4594	67.1127	14.3610	14.3756	14.1790	15.7192	871.260	847.039	1.98070	1.93669	14.3365	1476.52	1460.12	1461.04	15.5324												
-.003272	67.2497	67.1127	14.3610	15.2209	15.0375	14.8779	868.011	847.039	1.72907	1.68487	14.3365	1475.88	1460.12	1460.72	13.3158												
-.001848	67.4594	67.1127	14.4801	14.3756	14.1790	13.9315	873.041	847.039	1.49086	1.44819	14.4418	1476.04	1460.12	1461.04	13.3158												
.006968	67.4594	67.3237	14.3610	14.3756	14.1790	15.7192	879.643	847.039	1.26729	1.23258	14.3365	1476.52	1460.12	1461.04	13.3158												
.012088	69.1366	67.1127	14.4801	14.3756	14.1790	13.9315	881.425	847.039	1.06285	1.02947	14.3365	1475.88	1460.12	1459.92	15.5324												
.028558	67.2497	67.1127	14.8374	14.3756	14.1790	14.8779	863.924	847.039	.726133	.692397	14.1259	1475.88	1460.12	1459.76	13.3158												
.033678	69.1366	67.1127	14.4801	14.3756	14.9302	13.9315	846.213	847.039	.567396	.531429	14.3365	1475.88	1460.12	1459.92	13.3158												
.038798	67.4594	68.8006	14.4801	14.3756	14.9302	14.8779	834.371	847.876	.437519	.392187	13.9153	1475.88	1460.12	1461.04	13.3158												
.043918	67.4594	65.4249	14.3610	14.3756	14.9302	15.7192	833.637	847.876	.344922	.289484	14.3365	1475.88	1460.12	1459.92	13.3158												
.049038	66.8304	67.1127	14.4801	14.3756	16.7545	15.7192	843.802	847.876	.295617	.228586	14.3365	1475.88	1460.12	1459.92	13.3158												
.054158	67.2497	67.1127	14.4801	14.3756	20.9397	16.5605	857.845	847.981	.273971	.200277	14.4418	1475.88	1459.81	1458.65	14.5824												
.059278	67.4594	67.1127	14.3610	15.2209	27.0566	19.0844	864.972	848.295	.257135	.189085	14.8631	1475.88	1459.02	1458.49	13.3158												
.064398	67.2497	67.1127	14.4801	14.375.																							

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R ZKB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.O.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A	PC-1	POJI	POFM	WLO2-1	PFJ	PFV-1	PGFT
PARAMETER	F-B	PC-2	POJ	PGOT	WLO2-2	PFVD	PFV-2	
UNITS	LBS	PSIA	PSIA	PSIA	LB-W	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12
.074638	67.4594	67.1127	14.4801	14.3756	82.8600	37.5930	841.182	848.399
.079758	67.2497	67.1127	14.3610	14.3756	136.195	44.3234	834.475	848.399
.084878	65.7822	67.1127	14.3610	14.3756	198.223	49.3711	838.667	848.609
.101516	65.7822	65.4249	14.4801	15.2209	307.898	56.1015	862.037	848.295
.106636	65.7822	67.1127	14.8374	14.3756	351.574	57.7841	867.172	848.609
.111756	67.4594	63.7371	14.4801	14.3756	384.198	59.4667	863.924	850.387
.116876	67.4594	67.1127	14.3610	14.3756	405.661	59.4667	852.082	850.387
.121996	67.4594	67.1127	14.3610	14.3756	418.538	59.4667	841.078	850.387
.127116	67.4594	65.4249	14.4801	14.3756	424.655	59.4667	837.305	850.387
.132236	67.2497	65.4249	14.3610	14.3756	425.299	59.4667	843.802	850.387
.137356	67.2497	65.4249	14.3610	14.3756	422.831	59.4667	855.330	850.387
.142476	67.2497	65.4249	15.0757	14.3756	419.397	59.4667	865.496	850.387
.147596	65.7822	63.7371	14.8374	14.3756	415.855	59.4667	867.906	850.387
.152716	65.7822	63.9481	15.0757	14.3756	411.670	59.4667	860.360	850.387
.157836	67.4594	65.4249	15.0757	14.3756	408.987	59.4667	848.204	850.387
.174432	67.2497	67.1127	14.4801	14.3756	404.802	58.6254	837.095	850.387
.179552	66.8304	63.7371	14.4801	14.3756	404.051	58.6254	844.012	851.224
.184672	65.7822	67.1127	14.4801	14.3756	402.227	57.7841	857.426	851.224
.189792	65.7822	67.1127	14.4801	15.2209	402.227	57.7841	867.068	851.224
.194912	65.5725	63.7371	14.8374	14.3756	402.227	57.7841	867.696	852.061
.200032	65.5725	63.9481	15.0757	14.3756	402.227	57.7841	859.627	852.061
.205152	65.5725	65.4249	15.0757	15.2209	402.227	57.7841	848.414	852.061
.210272	65.5725	63.7371	15.3139	14.3756	402.227	57.7841	838.667	852.061
.215392	64.9435	63.7371	15.0757	15.2209	404.051	57.7841	838.563	852.061
.220512	65.5725	63.7371	14.3610	14.3756	402.227	57.7841	847.890	852.061
.225632	65.5725	65.4249	14.4801	14.3756	404.051	56.9428	860.465	852.061
.230752	65.7822	63.7371	14.3610	14.3756	404.051	56.9428	868.744	852.061
.247291	65.5725	63.7371	14.4801	14.3756	404.051	56.9428	859.627	852.061
.252411	65.7822	63.9481	14.4801	15.2209	404.695	56.9428	847.785	852.061
.257531	67.2497	65.4249	15.3139	14.3756	404.695	56.9428	839.401	852.061
.262651	66.8304	63.7371	15.3139	14.3756	404.802	56.9428	839.401	852.061
.267771	67.2497	67.1127	15.3139	15.2209	405.339	57.7841	848.623	852.898
.272891	67.2497	67.1127	15.4330	15.2209	405.661	57.7841	861.199	852.898
.278011	67.2497	67.1127	16.7433	15.2209	406.412	57.7841	869.583	852.061
.283131	65.7822	63.7371	17.2198	15.6436	406.519	57.7841	867.172	852.898
.288251	65.5725	63.7371	17.3389	15.9606	406.519	57.7841	857.950	852.898
.293371	67.4594	67.1127	18.6492	17.7571	407.270	57.7841	846.213	852.898
.298491	70.8138	68.8006	19.1257	17.7571	407.378	57.7841	838.563	853.735
.303611	70.8138	69.6445	19.2448	18.6025	408.236	57.7841	839.506	853.735
.320116	67.4594	67.1127	20.1977	19.4478	408.987	57.7841	860.465	852.061
.325236	70.8138	68.8006	20.0786	19.4478	409.095	57.7841	868.849	852.898
.330356	70.8138	69.6445	19.2448	19.4478	409.095	57.7841	868.849	853.735
.335476	67.4594	67.1127	19.2448	19.4478	409.953	57.7841	860.360	853.735
.340596	67.4594	65.4249	19.2448	19.4478	410.919	57.7841	848.204	853.735
.345716	71.8620	69.8555	19.2448	19.4478	410.919	57.7841	839.401	853.735
.350836	72.4910	70.2774	19.2448	19.4478	410.919	57.7841	838.667	853.735
.355956	69.1366	68.8006	19.2448	19.4478	411.241	57.7841	847.890	853.735
.361076	67.4594	68.8006	19.2448	19.4478	411.670	57.7841	861.199	853.735
.366196	70.8138	70.0664	19.2448	19.4478	411.670	57.7841	869.687	853.735

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A		PC-1		POJI		POFM		WLO2-1		PFJ		PFV-1		PGFT
PARAMETER	F-B		PC-2		POJ		PGOT		WLO2-2		PFVD		PFV-2		
UNITS	LBS		PSIA		PSIA		PSIA		LB-W		PSIA		PSIA		PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
.371316	71.8620	69.6445	19.1257	19.4478	412.421	57.7841	868.849	853.735	.172655	.139379	29.6072	1428.59	1413.52	1411.61	13.3158
.376436	67.4594	67.3237	19.1257	19.4478	412.529	57.7841	860.465	853.735	.172655	.137075	29.6072	1428.59	1413.52	1411.61	13.3158
.393074	70.1848	68.8006	19.1257	19.4478	413.280	57.7841	840.344	853.735	.148905	.105145	31.3976	1428.59	1413.52	1411.61	15.5324
.398194	71.8620	69.6445	19.1257	18.6025	414.138	57.7841	838.143	853.735	.129664	.094940	30.4497	1428.59	1413.52	1411.61	13.3158
.403314	70.1848	68.8006	19.1257	18.6025	414.246	57.7841	845.374	853.735	.127258	.089015	30.4497	1428.59	1414.78	1412.73	13.3158
.408434	69.1366	68.8006	19.1257	18.6025	414.246	57.7841	858.684	853.735	.134173	.099549	31.3976	1428.59	1414.78	1412.89	13.3158
.413554	70.8138	70.2774	19.1257	18.6025	415.104	57.7841	868.744	853.735	.153715	.102511	31.3976	1429.87	1414.78	1412.89	14.8991
.418674	70.8138	69.6445	19.1257	19.4478	415.104	57.7841	870.840	854.573	.170551	.104157	31.3976	1429.87	1414.78	1412.73	13.3158
.423794	69.1366	67.1127	19.1257	18.6025	415.855	56.9428	864.133	853.735	.172655	.097244	31.3976	1429.87	1414.78	1412.89	13.3158
.428914	69.1366	67.1127	19.1257	18.6025	415.963	56.9428	852.082	853.735	.168145	.086711	31.3976	1429.87	1414.78	1415.59	13.3158
.434034	70.6041	67.1127	19.1257	18.6025	415.963	56.9428	842.021	854.573	.151310	.070910	31.3976	1429.87	1414.78	1415.59	13.3158
.439154	70.8138	69.6445	19.2448	18.6025	416.714	56.9428	838.667	853.735	.129664	.057414	31.3976	1429.87	1414.78	1415.59	13.3158
.444274	69.1366	67.1127	19.1257	18.6025	417.787	56.9428	845.270	853.735	.124853	.046880	31.3976	1431.14	1414.78	1415.59	13.3158
.449394	69.1366	67.1127	19.2448	18.6025	417.787	56.9428	857.426	854.573	.124853	.044247	31.3976	1431.14	1416.04	1412.89	13.3158
.465837	70.6041	68.8006	19.1257	18.6025	418.216	56.9428	870.840	853.735	.144094	.049843	31.3976	1431.14	1414.78	1415.59	15.5324
.470957	69.1366	67.1127	19.2448	18.6025	418.431	56.9428	866.334	853.735	.144094	.047210	31.3976	1431.14	1416.04	1414.00	13.3158
.476077	70.1848	68.8006	19.1257	18.6025	418.538	56.9428	857.217	854.573	.133572	.047210	31.3976	1431.14	1416.04	1415.59	13.3158
.481197	70.8138	69.8555	19.1257	18.6025	419.289	56.9428	845.374	854.573	.120043	.041614	31.3976	1431.14	1417.31	1415.59	13.3158
.486317	70.1848	68.8006	19.1257	18.6025	419.397	56.9428	839.506	854.573	.103207	.038980	31.3976	1431.14	1417.31	1415.59	13.3158
.491437	69.1366	67.1127	19.1257	18.6025	419.397	57.7841	841.916	854.573	.093587	.052806	31.6082	1431.14	1417.31	1415.59	13.3158
.496557	72.2813	69.6445	19.1257	18.6025	419.397	59.4667	848.728	854.573	.103207	.074531	31.6082	1431.14	1417.31	1415.59	13.3158
.501677	70.8138	68.8006	19.2448	18.6025	420.255	66.1971	853.758	854.573	.124853	.105145	31.6082	1431.14	1417.31	1415.59	13.3158
.506797	70.6041	68.8006	19.1257	18.6025	420.255	77.1340	845.270	854.573	.125212	.142013	31.6082	1431.14	1417.31	1415.59	13.3158
.511917	72.2813	68.8006	19.2448	19.4478	420.792	98.1665	821.900	854.573	.197007	.194352	31.6082	1431.14	1417.31	1415.90	13.3158
.517037	77.7322	73.8640	19.2448	19.4478	421.114	127.612	792.556	854.573	.268860	.273684	31.3976	1432.42	1417.31	1415.59	13.3158
.522157	77.7322	73.8640	20.0786	19.4478	421.114	160.423	766.567	854.573	.406252	.415888	31.3976	1432.42	1417.31	1415.59	13.3158
.538726	79.1998	77.2397	20.5551	21.1386	421.972	208.377	753.048	853.735	.899302	.916567	31.8188	1431.14	1417.31	1415.59	15.8491
.543846	82.5542	80.6153	21.2698	21.1386	422.724	226.044	756.820	853.735	1.26939	1.29018	31.6082	1432.42	1417.31	1415.90	13.3158
.548966	80.8770	80.6153	21.2698	21.1386	422.831	244.552	756.611	853.735	1.68818	1.70100	31.6082	1432.42	1417.31	1415.59	13.3158
.554086	83.1831	82.3031	22.9374	21.9840	422.831	272.315	748.017	853.735	2.11148	2.12728	31.7135	1432.42	1417.31	1415.90	13.3158
.559206	92.6174	90.7422	24.9624	22.7237	424.655	318.587	740.891	853.735	2.53238	2.54632	32.0295	1432.42	1417.31	1415.90	13.3158
.564326	104.987	102.557	29.1315	27.0563	423.582	382.525	741.415	853.735	2.93403	2.94660	32.9773	1432.42	1417.31	1416.22	13.3158
.569446	111.067	109.308	32.5860	29.1697	424.655	454.036	744.769	853.735	3.30803	3.31232	34.5570	1432.42	1417.31	1416.22	13.3158
.574566	119.453	117.747	36.9933	32.9739	424.655	523.022	750.952	853.735	3.63513	3.63425	36.3474	1432.42	1417.31	1415.90	13.3158
.579686	131.403	127.874	40.2095	35.9328	424.655	578.968	756.611	853.735	3.90540	3.89990	39.7175	1431.14	1417.31	1415.59	13.3158
.584806	136.225	134.625	42.1154	39.7370	424.655	617.248	758.916	852.898	4.11615	4.10169	43.0876	1431.14	1417.31	1415.59	13.3158
.589926	139.369	137.157	44.8551	42.2731	424.870	638.280	758.183	852.061	4.27068	4.25245	46.4577	1431.14	1416.04	1412.89	13.3158
.595046	144.820	141.377	45.9271	43.9639	424.870	646.483	757.659	852.061	4.38192	4.35910	51.6181	1429.87	1414.78	1412.89	13.3158
.611667	146.288	146.440	47.4757	46.5000	425.084	646.272	756.820	851.224	4.49736	4.47695	59.0955	1428.59	1412.25	1411.46	13.3158
.616787	146.288	144.752	47.7139	46.5000	425.299	645.010	757.030	851.224	4.53825	4.51316	63.3081	1425.39	1412.25	1410.18	13.3158
.621907	147.755	148.128	47.8330	47.3454	424.870	641.645	757.868	851.224	4.56471	4.54015	68.2579	1424.75	1409.56	1409.07	13.3158
.627027	149.642	148.128	47.7139	47.3454	424.870	637.439	758.183	851.224	4.58395	4.55529	72.1546	1423.47	1408.46	1407.80	13.3158
.632147	147.965	148.128	47.7139	47.3454	424.870	632.812	757.868	851.224	4.59357	4.56583	76.7884	1423.47	1407.20	1406.37	13.3158
.637267	147.755	148.128	47.7139	47.3454	424.870	629.026	757.240	851.224	4.59717	4.56616	82.6861	1420.92	1407.20	1405.42	13.3158
.642387	151.110	149.816	47.8330	48.1908	424.870	624.819	756.611	850.387	4.59717	4.56616	92.4804	1418.36	1404.67	1402.56	13.3158
.647507	154.674	154.879	49.7389	49.0362	424.870	621.454	754.829	850.387	4.59778	4.56583	110.173	1411.97	1398.98	1397.63	13.3158
.652627	163.060	161.631	53.5507	51.5723	424.655	618.930	753.886	850.387	4.60319	4.56616	145.980	1397.91	1393.29	1392.39	13.3158
.657747	208.344	205.303	70.5845	61.7169	422.831	620.613	753.152	850.387	4.60319	4.56616	212.434	1364.04	1384.44	1382.37	14.8991
.662867	340.843	335.476	125.021	105.677	421.114	626.292	756.820	850.387	4.60319	4.56616	321.225	1292.78	1374.33	1374.91	13.3158

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	F-A LBS	F-B LBS	PC-1 PSIA	PC-2 PSIA	POJI PSIA	POJ PSIA	POFM PSIA	PGOT PSIA	WLO2-1 LB-W	WLO2-2 LB-W	PFJ PSIA	PFVD PSIA	PFV-1 PSIA	PFV-2 PSIA	PGFT PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
.667987	557.203	542.866	210.667	180.070	419.397	641.645	763.318	850.387	4.59597	4.56122	454.238	1208.74	1366.75	1365.05	13.3158
.684163	929.541	911.022	377.551	335.620	417.787	684.551	780.819	848.295	4.55749	4.51908	699.307	1091.15	1354.11	1354.56	13.3158
.689283	1114.03	1094.99	459.385	416.777	415.963	708.949	791.613	848.295	4.50939	4.46510	823.157	1057.76	1351.58	1349.32	14.8991
.694403	1266.45	1250.27	524.423	481.871	415.104	726.616	797.587	848.504	4.43242	4.38675	926.050	1050.25	1347.79	1346.78	13.3158
.699523	1368.97	1356.61	570.164	534.285	414.246	737.553	803.560	848.295	4.33381	4.28800	1009.35	1056.64	1346.52	1345.35	14.8991
.704643	1434.38	1425.81	598.633	570.213	414.246	742.601	805.132	848.295	4.21296	4.17081	1070.12	1074.54	1346.52	1344.71	13.3158
.709763	1483.02	1479.82	616.620	595.997	414.246	744.284	805.970	848.295	4.08849	4.04474	1112.98	1094.99	1346.52	1344.71	13.3158
.714883	1503.14	1501.34	625.316	610.369	414.246	744.284	805.132	848.295	3.96102	3.92327	1138.37	1114.16	1346.52	1344.71	13.3158
.720003	1506.50	1511.89	628.175	619.668	414.246	742.601	805.027	848.295	3.84317	3.80510	1150.69	1128.86	1346.52	1345.03	13.3158
.725123	1506.50	1511.89	627.102	621.359	414.246	739.236	803.770	848.295	3.73734	3.70207	1152.69	1139.40	1346.52	1345.35	13.3158
.730243	1501.26	1508.51	623.767	621.359	414.246	735.871	801.674	847.876	3.64595	3.61385	1148.48	1146.11	1347.79	1345.98	13.3158
.735363	1492.03	1500.07	619.598	619.668	414.246	732.505	800.102	847.876	3.57380	3.54176	1140.05	1147.39	1347.79	1346.30	13.3158
.740483	1483.02	1491.63	615.905	616.286	414.246	729.981	798.425	847.876	3.51367	3.48678	1130.26	1144.84	1347.79	1346.62	13.3158
.757012	1468.55	1474.33	610.902	610.792	414.675	727.037	798.425	847.039	3.43911	3.41502	1111.30	1134.61	1347.79	1346.62	13.3158
.762132	1464.36	1471.38	609.473	609.523	414.997	727.037	798.320	847.876	3.41987	3.39396	1101.29	1128.22	1347.79	1346.62	13.3158
.767252	1462.89	1469.69	608.758	606.987	414.997	726.616	797.587	847.876	3.40303	3.38145	1093.71	1123.11	1347.79	1346.62	13.3158
.772372	1459.75	1464.63	608.282	606.142	415.104	726.616	797.587	847.876	3.39582	3.37058	1086.97	1116.72	1347.79	1346.78	13.3158
.777492	1455.97	1459.56	606.257	604.028	415.104	725.775	797.587	847.876	3.39101	3.36532	1082.86	1111.60	1347.79	1346.78	13.3158
.782612	1456.18	1459.56	606.138	603.606	415.104	725.775	797.482	847.876	3.38560	3.36268	1077.70	1107.77	1347.79	1346.62	13.3158
.787732	1455.97	1459.56	606.138	602.760	415.855	724.934	797.272	847.876	3.38499	3.36235	1074.33	1103.93	1347.79	1346.62	13.3158
.792852	1452.83	1457.87	605.185	602.760	415.855	724.092	796.853	847.876	3.38379	3.36268	1071.81	1101.38	1347.79	1346.62	13.3158
.797972	1454.30	1459.56	605.185	601.070	415.104	724.092	796.853	847.876	3.38139	3.36235	1070.12	1098.18	1347.79	1346.62	13.3158
.803092	1452.83	1457.87	604.351	601.070	415.104	723.251	795.805	847.876	3.38139	3.36104	1069.38	1097.54	1347.79	1346.62	13.3158
.808212	1449.47	1454.50	604.351	601.070	414.997	722.410	795.910	847.876	3.37898	3.35742	1067.59	1096.27	1347.79	1346.62	13.3158
.813332	1449.47	1454.50	604.232	600.224	415.104	722.410	796.853	847.039	3.37898	3.35742	1066.65	1094.99	1347.79	1346.62	13.3158
.829515	1450.94	1454.50	604.232	600.224	407.378	722.410	795.072	847.039	3.37417	3.35248	1065.07	1093.71	1347.79	1346.62	13.3158
.834635	1449.47	1454.50	604.232	600.224	390.315	722.410	795.072	847.039	3.37417	3.35215	1064.22	1092.43	1347.79	1346.62	13.3158
.839755	1448.85	1452.81	604.232	600.224	361.769	722.410	794.967	847.039	3.37177	3.34952	1064.22	1092.43	1347.79	1346.78	13.3158
.844875	1449.26	1454.50	603.398	599.379	326.677	722.410	794.128	847.039	3.37177	3.34919	1064.12	1092.43	1347.79	1346.78	13.3158
.849995	1447.59	1451.12	602.445	599.379	288.903	720.307	793.395	847.039	3.36936	3.34655	1063.38	1091.15	1347.79	1346.78	13.3158
.855115	1447.59	1451.12	602.445	599.379	252.953	719.886	794.128	847.039	3.37177	3.34425	1062.96	1091.15	1347.79	1346.78	13.3158
.860235	1446.75	1451.12	603.279	599.379	218.612	720.307	794.757	847.039	3.37177	3.34655	1062.64	1091.15	1347.79	1346.78	13.3158
.865355	1447.80	1452.81	603.279	599.379	188.350	720.517	794.967	847.039	3.37417	3.34853	1062.64	1091.15	1347.79	1346.78	13.3158
.870475	1449.26	1452.81	604.232	600.224	163.667	722.410	795.072	847.039	3.37658	3.34952	1062.64	1091.15	1347.79	1346.78	13.3158
.875595	1449.26	1452.81	604.232	600.224	143.063	722.410	795.072	847.039	3.37658	3.35182	1062.64	1091.15	1347.79	1346.78	13.3158
.880715	1449.26	1452.81	603.994	599.379	125.786	720.517	794.967	847.039	3.37658	3.35215	1062.64	1091.15	1347.79	1346.78	13.3158
.885835	1449.47	1454.50	603.755	600.224	113.659	720.307	794.967	847.039	3.37658	3.35182	1060.85	1089.87	1347.79	1346.78	13.3158
.902437	1447.59	1451.12	602.445	599.379	96.4888	720.307	794.548	847.039	3.37177	3.34655	1060.85	1088.28	1347.79	1346.78	13.3158
.907557	1449.26	1452.81	603.279	599.379	89.7281	719.886	794.757	847.039	3.37177	3.34688	1060.85	1088.28	1347.79	1346.78	13.3158
.912677	1448.85	1451.12	603.279	599.379	84.5770	719.886	794.233	847.039	3.36665	3.34919	1060.43	1087.96	1347.79	1346.78	13.3158
.917797	1447.80	1451.12	602.445	599.379	80.2844	719.886	794.967	847.039	3.36635	3.34853	1060.01	1087.96	1347.79	1346.78	13.3158
.922917	1447.80	1451.12	603.279	599.379	76.7431	720.307	794.967	847.039	3.36665	3.34952	1060.01	1087.96	1347.79	1346.78	13.3158
.928037	1447.80	1452.81	603.279	599.379	74.3821	720.307	794.967	847.039	3.37177	3.34853	1060.01	1087.96	1347.79	1346.78	13.3158
.933157	1449.26	1452.81	603.398	599.379	70.5188	719.886	794.128	847.039	3.37177	3.34787	1059.91	1087.96	1347.79	1346.78	13.3158
.938277	1449.47	1454.50	602.445	599.379	67.8360	719.886	794.548	847.039	3.37177	3.34688	1059.91	1087.96	1347.79	1346.78	13.3158
.943397	1449.47	1454.50	603.398	599.379	65.5824	719.886	794.967	847.039	3.37177	3.34655	1060.01	1087.32	1347.79	1346.78	13.3158
.948517	1448.85	1454.50	603.398	600.224	63.8654	720.307	794.967	847.039	3.37417	3.34688	1059.91	1087.32	1348.42	1346.62	13.3158
.953637	1449.47	1454.50	604.232	600.224	62.1483	720.517	794.967	847.039	3.37658	3.34688	1059.91	1087.32	1347.79	1346.78	13.3158
.958757	1449.47	1454.50	604.232	600.224	60.6459	720.622	794.967	847.039	3.37658	3.34919	1059.91	1087.32	1348.42	1346.62	14.5824



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A	PC-1	POJI	POFM	WLO2-1	PFJ	PFV-1	PGFT
PARAMETER	F-B	PC-2	POJ	PGOT	WLO2-2	PFV-2		
UNITS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32
.975278	1449.26	1454.50	603.398	599.379	57.8558	720.307	793.395	845.365
.980398	1449.47	1454.50	603.398	599.379	56.9973	720.307	793.395	846.202
.985518	1449.47	1454.50	603.279	600.224	56.1388	720.307	793.395	846.202
.990638	1448.85	1454.50	603.398	599.379	55.2802	720.307	793.395	847.039
.995758	1449.47	1454.50	603.279	600.224	55.2802	719.886	794.233	847.039
1.000878	1449.47	1452.81	603.398	600.224	54.5290	719.886	794.967	847.039
1.005998	1449.26	1452.81	604.232	600.224	54.4217	720.307	795.072	847.039
1.011118	1449.47	1454.50	604.351	601.070	53.7778	722.410	796.853	847.039
1.016238	1452.62	1457.87	604.351	601.070	51.9535	722.410	796.853	846.202
1.021358	1452.83	1457.87	604.351	601.070	51.8462	722.410	796.853	846.202
1.026478	1451.15	1454.50	604.351	601.070	50.2365	722.410	796.853	846.202
1.031598	1450.94	1457.87	603.994	600.224	49.6999	720.307	795.910	846.202
1.047745	1449.26	1451.12	604.232	600.224	48.4121	720.307	795.072	845.365
1.052865	1449.47	1454.50	604.232	600.224	47.5536	720.307	795.072	845.365
1.057985	1451.15	1456.19	604.232	601.070	46.9097	722.410	796.853	846.202
1.063105	1451.15	1456.19	604.351	601.070	45.8366	722.410	797.063	846.202
1.068225	1452.62	1456.19	605.185	601.070	45.0854	723.251	797.272	846.202
1.073345	1454.30	1458.09	605.304	601.070	44.6562	723.251	797.482	846.202
1.078465	1454.30	1457.87	605.304	601.070	44.2269	723.251	797.482	846.202
1.083585	1452.83	1456.19	605.661	601.915	43.3684	723.251	797.587	846.202
1.088705	1454.51	1457.87	605.185	601.070	43.2611	722.410	797.587	846.202
1.093825	1452.83	1456.19	604.351	601.070	42.5099	722.410	797.482	845.365
1.098945	1452.83	1457.87	605.185	601.915	42.5099	723.251	797.063	846.202
1.104065	1454.30	1459.56	604.351	601.070	41.6514	722.410	796.853	845.365
1.120593	1451.99	1456.19	604.351	601.070	40.7928	722.410	795.072	845.365
1.125713	1452.83	1457.87	604.351	601.070	40.7928	722.410	795.072	845.365
1.130833	1452.83	1457.87	604.351	601.070	40.6855	722.410	795.072	845.365
1.135953	1451.15	1456.19	604.351	601.070	40.0416	722.410	795.072	846.202
1.141073	1452.62	1456.19	604.351	601.070	40.0416	722.410	795.072	845.365
1.146193	1452.83	1457.87	604.351	601.070	40.0416	721.568	794.967	845.365
1.151313	1449.47	1454.50	604.232	601.070	40.0416	720.307	794.967	846.202
1.156433	1449.47	1454.50	604.232	601.070	38.2173	720.307	795.072	845.365
1.161553	1452.62	1457.87	604.351	601.070	38.2173	720.307	795.072	845.365
1.166673	1452.62	1457.87	604.351	601.070	38.2173	720.517	795.072	845.365
1.171793	1452.62	1456.19	604.351	601.070	38.1100	722.410	796.853	845.365
1.176913	1454.51	1457.87	605.185	601.070	37.3588	722.410	796.853	845.365
1.193528	1455.55	1459.56	605.423	601.915	37.3588	723.251	796.853	845.365
1.198648	1454.51	1457.87	605.661	601.915	37.3588	722.410	796.853	845.365
1.203768	1455.97	1459.56	605.661	601.915	37.2515	723.251	795.910	845.365
1.208888	1452.83	1457.87	605.304	602.760	37.3588	722.410	795.072	845.365
1.214008	1454.30	1457.87	605.185	601.915	36.5003	722.410	795.072	845.365
1.219128	1452.62	1457.87	604.351	601.070	36.5003	720.307	794.967	845.365
1.224248	1452.20	1457.87	604.351	601.070	36.5003	720.307	794.967	845.365
1.229368	1452.62	1457.87	604.351	601.070	36.5003	720.307	794.967	845.365
1.234488	1452.62	1457.87	604.232	601.070	36.3930	720.307	795.072	845.365
1.239608	1452.62	1457.87	604.351	601.070	36.3930	722.410	796.853	845.365
1.244728	1452.83	1457.87	605.185	601.915	36.3930	722.410	796.853	845.365
1.249848	1455.97	1459.56	605.304	601.915	36.3930	722.410	797.063	845.365
1.265986	1454.51	1457.87	605.304	602.760	36.5003	722.410	797.063	844.528

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A	PC-1	POJI	POFM	WLO2-1	PFJ	PFV-1	PGFT
PARAMETER	F-B	PC-2	POJ	PGOT	WLO2-2	PFVD	PFV-2	
UNITS	LBS	PSIA	PSIA	PSIA	LB-W	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12
1.271106	1456.18	1459.56	605.661	602.760	36.3930	723.251	797.063	845.365
1.276226	1456.18	1459.56	605.304	601.915	36.3930	722.410	796.853	845.365
1.281346	1455.97	1459.56	606.138	602.760	36.3930	722.410	796.853	845.365
1.286466	1455.97	1459.56	606.138	602.760	36.3930	723.251	796.853	845.365
1.291586	1456.18	1459.56	605.900	602.760	36.3930	722.410	796.853	845.365
1.296706	1454.51	1457.87	605.661	602.760	36.3930	722.410	796.853	845.365
1.301826	1455.97	1459.56	605.185	602.760	36.3930	722.410	796.853	845.365
1.306946	1456.18	1459.56	605.304	602.760	36.3930	722.410	795.072	845.365
1.312066	1454.51	1457.87	605.185	601.915	36.3930	722.410	795.072	845.365
1.317186	1454.51	1459.56	605.185	601.915	36.3930	721.568	794.967	845.365
1.322306	1454.51	1457.87	604.351	601.915	36.3930	721.568	794.233	845.365
1.338792	1453.88	1457.87	604.351	601.070	35.6418	720.307	794.128	845.365
1.343912	1454.30	1459.56	604.351	601.070	35.6418	720.307	794.757	845.365
1.349032	1455.97	1459.56	605.185	601.915	36.3930	720.517	795.072	845.365
1.354152	1455.13	1459.56	605.304	601.915	36.3930	722.410	794.757	845.365
1.359272	1455.97	1459.56	605.185	602.760	36.3930	721.568	794.967	845.365
1.364392	1454.51	1457.87	605.185	601.070	35.6418	721.568	794.757	845.365
1.369512	1452.83	1457.87	604.351	601.070	35.6418	720.307	794.128	845.365
1.374632	1454.30	1457.87	604.351	601.070	35.6418	720.307	793.395	845.365
1.379752	1453.88	1457.87	604.351	601.070	35.6418	720.307	794.233	845.365
1.384872	1452.83	1457.87	604.351	601.070	35.6418	720.307	794.233	845.365
1.389992	1454.30	1457.87	604.351	601.070	35.6418	720.307	794.233	845.365
1.395112	1452.83	1457.87	604.351	601.070	35.6418	720.307	794.967	845.365
1.411716	1452.83	1457.87	604.351	601.070	35.6418	720.307	794.757	844.528
1.416836	1454.30	1459.56	604.351	601.915	36.3930	720.307	794.967	845.365
1.421956	1454.51	1457.87	605.185	601.915	36.3930	722.410	794.967	845.365
1.427076	1455.97	1459.56	605.185	601.915	36.1783	722.410	794.233	845.365
1.432196	1456.18	1459.56	605.185	601.915	36.1783	720.517	794.233	845.365
1.437316	1454.30	1457.87	604.351	601.070	35.6418	720.307	794.233	845.365
1.442436	1452.83	1457.87	604.232	601.070	35.6418	720.307	794.128	845.365
1.447556	1454.30	1457.87	604.351	601.070	35.6418	720.307	793.395	845.365
1.452676	1454.30	1457.87	604.351	601.070	35.6418	720.307	793.395	845.365
1.457796	1452.83	1457.87	604.351	601.070	35.6418	720.307	793.395	845.365
1.462916	1452.83	1457.87	605.185	601.915	36.3930	720.307	794.128	845.365
1.468036	1455.55	1459.56	605.185	601.915	36.1783	720.307	794.233	845.365
1.484191	1454.51	1457.87	605.900	602.760	36.3930	721.568	794.967	844.528
1.489311	1456.18	1459.56	606.138	602.760	36.3930	722.410	794.967	845.365
1.494431	1456.18	1459.56	605.185	602.760	36.3930	720.517	795.072	845.365
1.499551	1455.97	1459.56	605.185	602.760	36.3930	722.410	795.072	845.365
1.504671	1456.18	1459.56	606.138	602.760	36.3930	722.410	795.072	845.365
1.509791	1456.18	1459.56	606.138	602.760	36.1783	722.410	794.967	845.365
1.514911	1456.18	1459.56	606.138	602.760	36.3930	722.410	794.757	845.365
1.520031	1456.18	1459.56	605.185	602.760	36.3930	720.517	794.757	845.365
1.525151	1455.97	1459.56	604.351	601.915	35.9637	721.568	794.233	845.365
1.530271	1452.83	1457.87	604.351	601.915	36.1783	720.307	794.233	845.365
1.535391	1454.30	1459.56	605.185	601.070	35.6418	720.307	794.233	845.365
1.540511	1454.51	1459.56	605.185	601.915	36.1783	720.307	795.072	845.365
1.556647	1456.18	1460.41	605.304	602.760	36.3930	722.410	796.853	844.528
1.561767	1459.75	1459.56	606.138	602.760	36.1783	723.251	797.482	845.365

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A	PC-1	POJI	POFM	WLO2-1	PFJ	PFV-1	PGFT
PARAMETER	F-B	PC-2	POJ	PGOT	WLO2-2	PFVD	PFV-2	
UNITS	LBS	PSIA	PSIA	PSIA	LBS-W	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32
1.566887	1459.75	1461.04	606.257	602.760	36.1783	723.251	798.320	845.365
1.572007	1459.75	1460.83	606.257	603.606	35.6418	724.092	798.425	845.365
1.577127	1461.00	1464.63	608.282	603.606	35.6418	724.092	798.425	845.365
1.582247	1461.21	1464.63	608.282	603.606	35.6418	724.934	798.111	845.365
1.587367	1460.17	1464.63	608.282	603.606	35.6418	724.092	797.482	845.365
1.592487	1460.17	1464.63	606.257	603.606	35.6418	723.672	796.853	845.365
1.597607	1460.59	1464.63	606.257	603.606	35.6418	723.251	797.063	845.365
1.602727	1460.17	1462.94	606.257	603.606	35.6418	723.251	797.063	845.365
1.607847	1460.17	1464.63	608.282	603.606	35.6418	724.092	796.853	845.365
1.612967	1460.17	1464.63	606.257	603.606	35.6418	724.092	796.853	845.365
1.629484	1456.18	1460.41	606.257	602.760	35.9637	723.251	795.805	844.528
1.634604	1460.17	1461.04	606.138	602.760	36.1783	723.251	795.805	845.365
1.639724	1459.75	1462.94	606.138	602.760	36.1783	722.410	796.853	845.365
1.644844	1457.86	1460.41	606.257	602.760	36.3930	723.251	796.853	845.365
1.649964	1459.75	1461.04	606.257	603.606	35.6418	723.251	796.853	845.365
1.655084	1459.75	1461.04	606.257	602.760	36.3930	722.410	796.853	845.365
1.660204	1457.86	1459.56	606.138	602.760	36.1783	722.410	795.072	845.365
1.665324	1459.75	1462.94	605.900	602.760	36.1783	722.410	795.072	845.365
1.670444	1457.86	1460.41	606.138	602.760	36.3930	722.410	795.072	845.365
1.675564	1459.75	1460.41	606.138	602.760	36.3930	720.622	795.072	845.365
1.680684	1459.75	1462.94	606.257	602.760	36.1783	722.410	795.072	845.365
1.685804	1459.75	1461.04	606.257	602.760	36.3930	722.410	795.072	845.365
1.702747	1459.75	1462.94	606.138	602.760	36.1783	722.410	795.072	844.528
1.707867	1457.86	1460.83	606.138	602.760	36.3930	722.410	795.072	845.365
1.712987	1456.18	1459.56	606.138	602.760	36.1783	721.568	794.233	845.365
1.718107	1457.86	1460.41	605.661	602.760	36.1783	720.517	794.233	845.365
1.723227	1456.18	1459.56	605.304	602.760	36.1783	720.307	794.233	845.365
1.728347	1456.18	1459.56	605.661	602.760	36.1783	720.307	794.233	845.365
1.733467	1455.55	1459.56	605.661	602.760	35.6418	720.307	794.233	845.365
1.738587	1455.97	1459.56	605.661	602.760	35.9637	720.307	794.967	845.365
1.743707	1456.18	1461.04	605.185	602.760	36.1783	720.307	794.233	845.365
1.748827	1455.97	1459.56	605.900	602.760	35.9637	720.307	793.395	845.365
1.753947	1455.97	1459.56	605.185	602.760	35.6418	720.307	793.395	845.365
1.759067	1456.18	1459.56	605.661	602.760	35.9637	720.307	793.395	844.528
1.789557	1457.86	1462.94	606.257	603.606	33.3882	722.410	795.072	844.528
1.810456	1459.75	1460.41	605.900	602.760	20.1885	720.622	795.072	845.365
1.828239	1456.18	1459.56	606.257	602.760	14.1790	721.568	795.072	845.365
1.846342	1459.75	1461.04	608.282	603.606	13.2131	722.410	795.072	845.365
1.864088	1462.89	1468.00	608.997	606.142	14.0716	724.934	797.587	845.365
1.882182	1462.89	1468.00	608.758	604.345	14.1790	724.092	797.272	845.365
1.900846	1461.21	1466.31	608.282	604.345	14.1790	724.092	797.482	845.365
1.918601	1462.68	1464.63	608.282	604.345	14.1790	724.092	797.482	845.365
1.936729	1462.68	1464.63	608.282	604.345	14.1790	723.251	796.853	845.365
1.954481	1462.68	1466.31	608.282	604.028	14.1790	723.251	796.853	845.365
1.972577	1462.89	1468.00	608.282	604.240	14.1790	723.251	797.482	845.365
1.991189	1462.68	1468.00	608.282	604.240	14.1790	723.251	797.063	845.365
2.016634	1461.00	1464.63	608.282	603.606	14.1790	722.410	795.072	845.365
2.037007	1456.18	1459.56	606.138	602.760	14.1790	720.307	793.395	845.365
2.054782	1457.65	1460.62	606.138	602.760	14.1790	719.886	794.128	845.365

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A		PC-1		POJI		POFM		WLO2-1		PFJ		PFV-1		PGFT
PARAMETER	F-8		PC-2		POJ		PGOT		WLO2-2		PFV0		PFV-2		
UNITS	LBS		PSIA		PSIA		PSIA		LR-W		PSIA		PSIA		PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
2.072884	1462.68	1468.00	608.282	604.028	14.1790	723.251	796.853	845.365	3.31885	3.29718	1056.64	1086.04	1355.37	1354.56	14.8991
2.091116	1462.89	1464.63	608.282	604.240	14.0716	723.251	796.853	845.365	3.32607	3.30211	1057.38	1087.32	1355.37	1354.56	13.3158
2.109302	1462.89	1468.00	608.520	604.240	14.1790	724.092	797.587	845.365	3.32607	3.30442	1056.64	1086.04	1354.11	1354.56	13.3158
2.127443	1466.25	1469.69	608.997	606.142	14.1790	724.934	798.320	845.365	3.32787	3.30442	1056.64	1086.04	1354.11	1351.86	13.3158
2.145171	1464.57	1468.00	608.520	604.240	14.1790	724.092	797.482	845.365	3.32727	3.30211	1056.64	1086.04	1354.11	1351.86	12.9991
2.163297	1462.68	1468.00	608.282	604.028	14.1790	723.251	797.587	845.365	3.32787	3.30113	1056.54	1086.04	1354.11	1351.86	13.3158
2.181475	1462.89	1468.00	608.282	604.134	14.1790	723.251	798.425	845.365	3.33328	3.30475	1056.11	1086.04	1354.11	1351.86	13.3158
2.199663	1462.89	1468.00	608.520	604.240	14.1790	724.092	798.111	845.365	3.33328	3.30639	1056.22	1086.04	1354.11	1351.70	13.3158
2.217800	1462.68	1464.63	608.282	604.028	14.1790	723.251	796.853	845.365	3.32727	3.30211	1056.11	1086.04	1354.11	1351.70	13.3158
2.243644	1461.00	1464.63	608.282	603.606	14.1790	722.410	796.853	845.365	3.31885	3.29784	1055.90	1086.04	1354.11	1351.70	13.3158
2.264253	1462.89	1468.00	608.758	604.240	14.1790	723.251	797.482	845.365	3.32607	3.30442	1055.90	1086.04	1354.11	1351.70	13.3158
2.282308	1462.68	1464.63	608.282	604.028	14.1790	723.251	796.853	845.365	3.32607	3.30475	1055.90	1086.04	1354.11	1351.70	13.3158
2.300947	1462.68	1466.31	608.282	604.028	14.1790	723.251	797.063	845.365	3.32607	3.30179	1055.90	1086.04	1354.11	1351.70	13.3158
2.318690	1462.89	1468.00	608.997	604.345	14.1790	724.092	798.320	845.365	3.32727	3.30442	1055.90	1086.04	1352.84	1351.70	13.3158
2.336430	1462.89	1466.31	608.520	604.345	14.1790	724.092	798.320	845.365	3.32607	3.30211	1055.90	1086.04	1354.11	1351.07	13.3158
2.354552	1462.68	1468.00	608.282	604.345	14.1790	723.251	797.167	845.365	3.32607	3.29948	1055.90	1086.04	1354.11	1351.70	13.3158
2.372680	1462.89	1468.00	608.282	604.345	14.1790	723.251	796.853	845.365	3.32607	3.29915	1055.90	1086.04	1354.11	1351.07	13.3158
2.391274	1462.89	1466.31	608.520	604.028	14.1790	723.251	796.853	845.365	3.32366	3.29784	1055.90	1086.04	1352.84	1351.39	13.3158
2.409492	1461.21	1466.31	608.282	604.028	14.1790	722.410	796.853	845.365	3.32366	3.29718	1055.90	1086.04	1352.84	1351.70	13.3158
2.427241	1462.89	1468.00	608.282	604.028	14.1790	723.251	797.272	845.365	3.32607	3.29784	1055.90	1086.04	1352.84	1351.70	13.3158
2.444978	1462.89	1466.31	608.282	604.240	14.1790	723.251	796.853	845.365	3.32607	3.29948	1055.90	1086.04	1354.11	1351.07	13.3158
2.471239	1462.89	1468.00	608.520	604.345	14.1790	723.251	797.063	845.365	3.32607	3.30179	1054.11	1084.76	1354.11	1351.07	13.3158
2.493319	1460.38	1464.63	608.282	604.028	14.1790	721.568	795.805	845.365	3.31885	3.29718	1054.11	1084.76	1354.11	1351.39	13.3158
2.511508	1461.00	1464.63	608.282	603.606	14.1790	721.568	795.910	845.365	3.31645	3.29158	1054.11	1084.76	1354.11	1351.39	13.3158
2.529731	1461.00	1464.63	608.282	603.606	14.1790	720.517	795.072	845.365	3.31885	3.29125	1054.11	1083.48	1352.84	1351.39	13.3158
2.547862	1461.21	1466.31	608.282	604.028	14.1790	722.410	795.072	845.365	3.31885	3.29421	1054.11	1083.48	1352.84	1351.39	13.3158
2.565606	1462.89	1468.00	608.520	604.134	14.1790	723.251	797.063	845.365	3.32366	3.29849	1054.11	1084.76	1352.84	1351.39	13.3158
2.583722	1462.89	1468.00	608.520	604.345	14.1790	723.251	797.482	845.365	3.32607	3.29948	1054.11	1084.76	1352.84	1351.70	13.3158
2.601878	1461.21	1464.63	608.282	604.028	14.1790	722.410	797.063	845.365	3.32366	3.29915	1054.11	1084.76	1352.84	1351.39	13.3158
2.620552	1462.89	1468.00	608.282	604.134	14.1790	723.251	796.853	845.365	3.32366	3.29948	1054.11	1084.76	1352.84	1351.39	13.3158
2.638289	1464.36	1468.00	608.758	605.297	14.1790	723.251	797.482	845.365	3.32727	3.29915	1054.11	1084.76	1352.84	1351.39	13.3158
2.656390	1466.25	1471.38	608.758	606.142	14.1790	724.092	798.320	845.365	3.32727	3.30047	1054.11	1084.76	1352.84	1351.39	13.3158
2.674519	1462.89	1466.31	608.282	604.134	14.1790	722.410	796.853	845.365	3.32607	3.29718	1054.11	1084.76	1352.84	1351.39	13.3158
2.699949	1462.89	1469.69	608.520	604.345	14.1790	723.251	797.587	845.365	3.32366	3.29718	1054.11	1084.76	1352.84	1351.70	13.3158
2.721326	1466.25	1471.38	609.116	606.142	14.1790	724.092	798.320	845.365	3.32607	3.30113	1054.11	1084.76	1354.11	1351.70	13.3158
2.739517	1464.57	1471.38	608.997	606.142	14.1790	724.092	797.587	845.365	3.32366	3.30113	1054.11	1084.76	1354.11	1351.70	13.3158
2.757657	1464.57	1469.69	608.997	606.142	14.1790	724.092	797.482	845.365	3.32366	3.29915	1054.11	1084.76	1354.11	1351.07	13.3158
2.775405	1464.57	1469.69	608.997	606.142	14.1790	724.092	798.320	845.365	3.32366	3.29849	1054.11	1084.76	1352.84	1351.39	13.3158
2.793530	1466.25	1471.38	608.997	606.142	14.1790	724.934	798.425	845.365	3.32607	3.30179	1054.11	1084.76	1352.84	1351.39	13.3158
2.811720	1464.57	1469.69	608.520	604.345	14.1790	723.251	797.063	845.365	3.32366	3.30179	1054.11	1084.76	1352.84	1350.43	13.3158
2.830449	1461.21	1466.31	608.282	604.028	14.1790	721.568	795.072	845.365	3.31885	3.29421	1054.11	1084.76	1352.84	1351.39	13.3158
2.848178	1461.21	1466.31	608.282	603.711	15.0375	720.307	795.072	845.365	3.31885	3.29158	1054.11	1083.48	1352.84	1351.39	13.3158
2.866318	1464.57	1468.00	608.758	604.345	14.9302	723.251	795.805	845.365	3.32607	3.29718	1054.11	1083.48	1352.84	1351.39	13.3158
2.884062	1464.36	1468.00	608.520	604.345	14.1790	723.251	796.853	845.365	3.32607	3.29718	1054.11	1083.48	1354.11	1350.59	13.3158
2.902188	1464.57	1471.38	608.997	606.142	14.1790	724.092	798.320	845.365	3.32607	3.29849	1054.11	1083.48	1352.84	1351.70	13.3158
2.927787	1464.57	1468.00	608.758	604.345	14.1790	724.092	796.853	845.365	3.32126	3.29849	1054.11	1084.76	1352.84	1351.70	13.3158
2.947765	1462.89	1468.00	608.758	606.142	14.1790	722.410	797.063	845.365	3.32366	3.29718	1054.11	1083.48	1354.11	1351.39	13.3158
2.965888	1466.25	1471.38	608.997	606.142	14.1790	724.092	797.482	845.365	3.32607	3.29948	1054.11	1083.48	1354.11	1351.07	13.3158
2.983631	1466.25	1471.38	608.997	606.142	14.1790	724.092	797.063	845.365	3.32607	3.30179	1054.11	1083.48	1352.84	1351.70	13.3158

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A		PC-1		POJI		POFN		WL02-1		PFJ		PFV-1		PGFT
PARAMETER		F-B		PC-2								PFVD		PFV-2	
UNITS	LBS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	LB-W	LB-W	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
3.001785	1464.57	1469.69	608.282	604.345	14.1790	722.410	796.853	845.365	3.32366	3.29915	1054.11	1083.48	1352.84	1351.39	13.3158
3.020426	1466.25	1471.38	608.997	606.142	14.1790	724.934	797.272	845.365	3.32727	3.30179	1054.11	1084.76	1354.11	1351.23	13.3158
3.038161	1466.04	1469.69	608.520	605.297	14.1790	723.251	795.910	845.365	3.32607	3.29915	1054.11	1084.76	1354.11	1351.23	13.3158
3.056269	1462.26	1468.00	607.091	604.028	14.1790	721.568	794.233	845.365	3.31404	3.28862	1054.11	1083.48	1352.84	1351.39	13.3158
3.074418	1461.21	1466.31	608.282	604.028	14.1790	721.568	796.853	845.365	3.30893	3.28631	1054.01	1083.48	1354.11	1351.23	13.3158
3.092147	1466.25	1471.38	608.997	606.142	14.1790	724.092	797.587	845.365	3.31885	3.29158	1054.01	1083.48	1354.11	1351.07	13.3158
3.110785	1466.04	1469.69	608.997	606.142	14.1790	724.092	796.853	845.365	3.32366	3.29915	1054.11	1063.48	1352.84	1351.39	13.3158
3.128542	1464.57	1469.69	608.282	604.345	14.1790	722.410	795.072	845.365	3.32607	3.29784	1054.11	1083.48	1352.84	1350.75	13.3158
3.156510	1466.04	1469.69	608.758	606.142	14.1790	723.251	795.805	845.365	3.32366	3.29915	1054.11	1083.48	1354.11	1351.39	13.3158
3.175442	1464.36	1468.00	608.520	604.345	14.1790	722.410	795.072	845.365	3.32366	3.29718	1054.01	1083.48	1354.11	1351.70	13.3158
3.193586	1466.25	1471.38	608.997	606.142	14.1790	723.251	797.063	845.365	3.32366	3.29718	1054.01	1083.48	1354.11	1351.70	13.3158
3.211780	1466.25	1471.38	608.520	606.142	14.1790	723.251	796.853	845.365	3.32366	3.29718	1054.11	1083.48	1354.11	1351.39	13.3158
3.230468	1464.36	1468.00	608.282	604.345	14.1790	722.410	795.072	845.365	3.32366	3.29158	1054.11	1083.48	1354.11	1351.70	13.3158
3.248198	1466.25	1471.38	608.997	606.142	14.1790	724.092	797.063	845.365	3.32366	3.29718	1054.11	1083.48	1354.11	1351.70	13.3158
3.266318	1467.71	1471.38	609.711	606.142	14.1790	724.092	797.587	845.365	3.32607	3.29948	1054.11	1083.48	1354.11	1351.70	13.3158
3.284462	1469.60	1473.07	609.949	606.142	14.1790	724.934	796.853	845.365	3.32607	3.30211	1054.11	1084.76	1354.11	1351.70	13.3158
3.302193	1462.89	1468.00	608.282	604.345	14.1790	722.410	795.072	845.365	3.32366	3.29915	1054.11	1083.48	1354.11	1351.39	13.3158
3.320845	1462.89	1466.31	608.520	604.134	14.1790	722.410	795.910	845.365	3.32126	3.29718	1054.01	1083.48	1354.11	1351.39	13.3158
3.338579	1465.20	1469.69	608.758	606.142	14.1790	723.251	796.853	845.365	3.32366	3.29915	1054.01	1083.48	1352.84	1351.39	13.3158
3.356706	1462.89	1468.00	608.282	604.345	14.1790	722.410	795.072	845.365	3.31885	3.29389	1054.01	1083.48	1354.11	1351.39	13.3158
3.382152	1462.89	1468.00	608.282	604.028	14.1790	720.622	795.072	845.365	3.31885	3.29158	1053.27	1083.48	1354.11	1351.70	13.3158
3.403526	1467.08	1471.38	608.997	606.142	14.1790	724.092	797.482	845.365	3.32126	3.29389	1053.80	1083.48	1354.11	1351.70	15.5324
3.421739	1467.92	1471.38	609.711	606.142	14.1790	724.934	798.320	845.365	3.32607	3.29784	1054.01	1083.48	1354.11	1351.70	13.3158
3.439947	1467.92	1471.38	608.997	606.142	14.1790	724.092	796.853	845.365	3.32366	3.30047	1054.11	1083.48	1354.11	1351.70	13.3158
3.457685	1466.25	1471.38	608.997	606.142	14.1790	723.251	796.853	845.365	3.32126	3.29158	1054.11	1083.48	1354.11	1351.70	13.3158
3.475795	1466.25	1471.38	608.758	606.142	14.1790	723.251	796.853	845.365	3.32126	3.29389	1054.01	1083.48	1354.11	1351.70	13.3158
3.493927	1466.04	1469.69	608.758	604.345	14.1790	722.410	795.072	845.365	3.32366	3.29421	1054.01	1083.48	1354.11	1351.70	13.3158
3.512101	1466.25	1471.38	608.758	606.142	14.1790	723.251	795.910	845.365	3.32366	3.29718	1054.01	1083.48	1354.11	1351.70	13.3158
3.530814	1467.71	1471.38	608.997	606.142	14.1790	724.092	797.167	845.365	3.32366	3.29915	1054.01	1083.48	1354.11	1351.70	13.3158
3.548549	1466.25	1471.38	609.116	606.142	14.1790	724.092	797.587	845.365	3.32607	3.30113	1054.11	1083.48	1354.11	1351.70	13.3158
3.566692	1464.57	1471.38	608.520	604.345	14.1790	722.410	795.072	845.365	3.31885	3.29718	1054.01	1083.48	1354.11	1351.86	13.3158
3.584847	1464.36	1468.00	608.520	606.142	14.1790	722.410	795.072	845.365	3.31645	3.29158	1054.01	1083.48	1354.11	1351.39	13.3158
3.610723	1465.62	1469.69	608.282	604.345	14.1790	722.410	795.072	845.365	3.31885	3.29158	1053.59	1083.48	1354.11	1351.70	14.8991
3.631319	1466.04	1471.38	608.758	606.142	14.1790	722.410	796.853	845.365	3.32126	3.29718	1053.27	1083.48	1354.11	1351.70	15.5324
3.649894	1467.92	1473.07	608.997	606.142	14.1790	724.092	797.272	845.365	3.32607	3.30211	1054.01	1083.48	1354.11	1351.70	13.3158
3.667634	1462.89	1469.69	608.282	604.028	14.1790	720.307	794.233	845.365	3.32366	3.29718	1053.59	1083.48	1354.11	1351.70	13.3158
3.685779	1462.26	1464.63	608.282	604.028	14.1790	720.307	793.395	845.365	3.31885	3.28862	1053.27	1083.48	1354.11	1351.70	13.3158
3.703910	1466.04	1469.69	608.758	606.142	14.1790	722.410	796.853	845.365	3.31404	3.28631	1053.27	1083.48	1354.11	1351.70	14.5824
3.722141	1467.92	1471.38	609.473	606.142	14.1790	724.092	797.587	845.365	3.31885	3.29125	1053.27	1083.48	1354.11	1351.70	13.3158
3.740813	1467.71	1471.38	609.116	606.142	14.1790	724.092	797.063	845.365	3.32366	3.29718	1054.01	1083.48	1354.11	1351.86	13.3158
3.758559	1467.71	1471.38	608.997	606.142	14.1790	723.251	795.910	845.365	3.32366	3.29718	1054.01	1083.48	1354.11	1351.86	13.3158
3.776683	1466.04	1469.69	608.282	606.142	14.1790	722.410	795.072	845.365	3.32607	3.29718	1054.01	1083.48	1354.11	1351.70	13.3158
3.794440	1462.89	1468.00	608.282	604.345	14.1790	722.410	795.072	845.365	3.32366	3.29158	1053.27	1083.48	1354.11	1351.70	14.5824
3.812557	1467.71	1471.38	608.997	606.142	14.9302	724.092	797.587	845.365	3.32607	3.29389	1053.27	1083.48	1354.11	1351.86	13.3158
3.838017	1465.62	1469.69	608.282	604.345	14.1790	722.410	795.072	845.365	3.31645	3.29125	1053.27	1083.48	1354.11	1351.70	13.3158
3.859489	1462.89	1468.00	608.282	604.028	14.1790	719.886	795.072	845.365	3.30683	3.28335	1053.17	1083.48	1354.11	1351.70	13.3158
3.877229	1467.92	1473.07	608.997	606.142	14.1790	723.251	797.587	845.365	3.31645	3.29125	1053.27	1083.48	1354.11	1351.70	13.3158
3.895369	1467.92	1473.07	609.116	606.987	14.1790	724.092	797.587	845.365	3.32366	3.29849	1053.27	1083.48	1354.11	1351.70	14.8991
3.913109	1467.71	1471.38	608.758	606.142	14.1790	723.251	795.805	845.365	3.32366	3.29389	1053.59	1083.48	1354.11	1351.86	13.3158



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	F-A LBS	F-8 LBS	PC-1 PSIA	PC-2 PSIA	POJI PSIA	POJ PSIA	POFM PSIA	PGOT PSIA	WLO2-1 LB-W	WLO2-2 LB-W	PFJ PSIA	PFVD PSIA	PFV-1 PSIA	PFV-2 PSIA	PGFT PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
3.931703	1465.20	1469.69	608.520	604.345	14.1790	722.410	795.072	845.365	3.31885	3.29158	1053.27	1083.48	1354.11	1351.86	13.3158
3.949917	1465.62	1468.00	608.282	604.345	14.1790	722.410	795.072	845.365	3.31404	3.29158	1053.27	1083.48	1354.11	1351.86	13.3158
3.967657	1466.04	1468.00	608.520	604.345	14.1790	722.410	796.853	845.365	3.31404	3.29158	1053.27	1083.48	1354.11	1351.86	13.3158
3.985790	1467.92	1471.38	608.997	606.142	14.1790	724.092	797.167	845.365	3.32126	3.29849	1053.27	1083.48	1354.11	1351.86	13.3158
4.003538	1466.25	1471.38	608.758	606.142	14.1790	723.251	795.910	845.365	3.32366	3.29784	1054.01	1083.48	1354.11	1351.39	13.3158
4.022106	1464.57	1471.38	608.282	604.345	14.1790	722.410	795.072	845.365	3.31885	3.29421	1053.27	1083.48	1354.11	1351.86	13.3158
4.040752	1464.57	1468.00	608.282	604.345	14.1790	721.568	794.233	845.365	3.31645	3.29389	1053.27	1083.48	1354.11	1351.86	13.3158
4.066213	1464.57	1468.00	608.282	604.345	14.1790	722.410	794.233	845.365	3.30833	3.29125	1053.27	1083.48	1354.11	1351.86	13.3158
4.086657	1466.25	1471.38	608.997	606.142	14.1790	722.410	796.853	845.365	3.31885	3.29026	1053.27	1083.48	1354.11	1351.86	13.3158
4.104411	1467.92	1471.38	609.711	606.142	14.1790	724.092	797.587	846.202	3.32366	3.29158	1053.80	1083.48	1354.11	1351.86	13.3158
4.122515	1467.92	1471.38	609.711	606.142	14.1790	724.092	797.587	845.365	3.32366	3.29718	1054.01	1083.48	1354.11	1351.86	13.3158
4.141141	1467.71	1471.38	608.997	606.142	14.1790	723.251	797.482	845.365	3.31885	3.29718	1053.80	1083.48	1354.11	1351.86	13.3158
4.159371	1468.55	1473.07	609.473	606.142	14.1790	724.092	797.587	845.365	3.32366	3.29718	1054.01	1083.48	1354.11	1351.86	14.6991
4.177115	1467.92	1471.38	609.116	606.142	14.1790	724.092	797.063	845.365	3.32607	3.29849	1053.80	1083.48	1354.11	1351.70	13.3158
4.195247	1469.60	1473.07	609.949	606.142	14.1790	724.092	797.063	845.365	3.32607	3.29784	1053.80	1083.48	1354.11	1351.70	13.3158
4.212989	1469.39	1473.07	609.116	606.142	14.1790	724.092	796.853	845.365	3.32607	3.29784	1054.01	1083.48	1354.11	1351.86	13.3158
4.231559	1467.71	1471.38	608.997	606.142	14.1790	722.410	796.853	845.365	3.32366	3.29915	1053.27	1083.48	1354.11	1351.70	13.3158
4.249756	1467.92	1473.07	608.997	606.142	14.1790	723.251	797.063	845.365	3.32366	3.30179	1053.27	1083.48	1354.11	1351.86	15.5324
4.267490	1469.39	1473.07	609.116	606.987	14.1790	724.092	797.482	845.365	3.32366	3.30179	1053.27	1083.48	1354.11	1351.86	13.3158
4.293745	1469.60	1473.07	609.949	606.987	14.1790	724.934	797.272	845.365	3.32366	3.29915	1054.01	1083.48	1354.11	1351.86	13.3158
4.313249	1469.39	1473.07	609.949	606.142	14.1790	724.092	797.482	845.365	3.32607	3.29718	1054.01	1083.48	1354.11	1351.86	13.3158
4.331436	1467.92	1473.07	609.949	606.142	14.1790	724.092	797.587	845.365	3.32366	3.29718	1054.01	1083.48	1354.11	1351.86	13.3158
4.349629	1469.60	1473.07	609.949	606.987	14.1790	724.092	797.587	845.365	3.32126	3.29915	1054.01	1083.48	1354.11	1351.86	13.3158
4.367772	1469.39	1473.07	609.711	606.142	14.1790	723.251	797.482	845.365	3.31885	3.29948	1054.01	1083.48	1354.11	1351.86	13.3158
4.385513	1469.39	1473.07	609.473	606.142	14.1790	723.251	797.272	845.365	3.31885	3.29915	1053.80	1083.48	1354.11	1351.86	13.3158
4.403658	1467.92	1471.38	608.997	606.142	14.1790	722.410	795.072	845.365	3.31645	3.29158	1053.27	1083.48	1354.11	1351.86	13.3158
4.421816	1464.57	1468.00	608.282	604.345	14.1790	720.517	794.233	845.365	3.31404	3.28599	1053.27	1083.48	1354.11	1351.86	13.3158
4.440488	1464.57	1471.38	608.520	604.345	14.1790	721.568	795.072	845.365	3.31404	3.28631	1053.17	1083.48	1354.11	1351.86	13.3158
4.458213	1466.25	1471.38	608.997	606.142	14.1790	723.251	797.063	845.365	3.31885	3.29158	1053.27	1083.48	1354.11	1351.86	13.3158
4.476350	1467.92	1471.38	608.997	606.142	14.1790	722.410	796.853	845.365	3.32126	3.29421	1053.27	1083.48	1354.11	1351.86	15.5324
4.494097	1467.92	1471.38	609.116	606.142	14.1790	723.251	797.482	845.365	3.32607	3.29718	1053.27	1083.48	1354.11	1351.86	13.3158
4.519519	1469.39	1473.07	609.711	606.142	14.1790	723.251	797.901	845.365	3.32727	3.30047	1053.27	1083.48	1354.11	1351.86	13.3158
4.541388	1467.92	1473.07	608.997	606.142	14.1790	722.410	797.063	845.365	3.32366	3.29915	1053.27	1083.48	1354.11	1351.86	13.3158
4.559629	1467.92	1471.38	608.997	606.142	14.1790	722.410	796.853	845.365	3.31885	3.29718	1053.27	1083.48	1354.11	1351.86	15.5324
4.577368	1466.04	1471.38	608.520	604.345	14.1790	722.410	794.967	845.365	3.31645	3.29158	1053.27	1083.48	1354.11	1351.86	13.3158
4.595524	1467.92	1471.38	608.997	606.142	14.1790	722.410	795.072	845.365	3.31404	3.28994	1053.17	1083.48	1354.11	1351.86	13.3158
4.613668	1467.92	1473.07	608.997	606.142	14.1790	722.410	795.072	845.365	3.31404	3.28862	1053.27	1083.48	1354.11	1351.86	13.3158
4.631812	1466.04	1471.38	608.282	604.345	14.1790	721.568	795.072	845.365	3.31404	3.28368	1052.43	1082.21	1354.11	1351.86	13.3158
4.650477	1464.57	1468.00	608.282	604.345	14.1790	721.568	796.853	845.365	3.30803	3.28105	1052.43	1082.21	1354.11	1351.86	13.3158
4.668239	1469.60	1473.07	609.711	606.142	14.1790	724.092	797.482	845.365	3.31885	3.29158	1053.17	1083.48	1354.11	1351.86	13.3158
4.685987	1467.71	1471.38	608.758	606.142	14.1790	722.410	795.072	845.365	3.31404	3.28895	1053.27	1083.48	1354.11	1351.86	13.3158
4.704124	1466.25	1471.38	608.282	604.345	14.1790	722.410	794.233	845.365	3.31885	3.28631	1053.17	1083.48	1354.11	1351.86	13.3158
4.722231	1464.57	1471.38	608.282	604.028	14.1790	720.307	794.128	845.365	3.31885	3.28631	1052.43	1082.21	1354.11	1351.70	13.3158
4.750279	1466.04	1468.00	608.282	604.345	14.1790	720.517	795.072	845.365	3.31404	3.28599	1052.43	1082.21	1354.11	1351.86	13.3158
4.769606	1467.71	1471.38	608.997	606.142	14.1790	723.251	797.272	845.365	3.31885	3.29158	1053.17	1083.48	1354.11	1351.86	13.3158
4.787347	1469.60	1473.07	609.949	606.987	14.1790	724.934	799.159	845.365	3.32366	3.29784	1053.27	1083.48	1354.11	1351.86	14.5824
4.805486	1473.16	1474.54	610.069	607.833	14.1790	725.775	798.425	845.365	3.32727	3.30179	1053.80	1083.48	1354.11	1351.86	13.3158
4.823615	1469.60	1473.07	609.949	606.987	14.1790	723.251	797.063	845.365	3.32366	3.29849	1054.01	1083.48	1354.11	1351.86	13.3158
4.841759	1469.39	1473.07	609.473	606.142	14.1790	723.251	796.853	845.365	3.32366	3.29915	1053.80	1083.48	1354.11	1351.86	13.3158

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A	PC-1	POJI	POFM	WLO2-1	PFJ	PFV-1	PGFT							
PARAMETER	F-B	PC-2	POJ	PGOT	WLO2-2	PFVD	PFV-2	PGIA							
UNITS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA							
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	5/ 12	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49	
4.860449	1466.25	1471.38	608.997	606.142	14.1790	722.410	795.072	845.365	3.31885	3.29158	1053.27	1083.48	1354.11	1351.86	13.3158
4.878184	1466.25	1471.38	608.997	606.142	14.1790	722.410	796.853	845.365	3.31645	3.28862	1053.27	1083.48	1354.11	1351.86	13.3158
4.896331	1469.60	1473.91	609.949	606.987	14.1790	724.092	798.320	845.365	3.32126	3.29421	1053.27	1083.48	1354.11	1351.86	13.3158
4.914080	1473.16	1474.54	610.069	607.833	14.1790	724.934	797.587	845.365	3.32366	3.29915	1053.80	1083.48	1354.11	1351.86	13.3158
4.932203	1469.39	1473.07	609.711	606.987	14.1790	724.092	797.482	845.365	3.32607	3.30113	1053.80	1083.48	1354.11	1351.86	13.3158
4.950844	1469.60	1473.07	609.949	606.142	14.1790	723.251	796.853	845.365	3.32727	3.30179	1053.80	1083.48	1354.11	1351.86	13.3158
4.976685	1467.71	1471.38	608.997	606.142	14.1790	722.410	796.853	845.365	3.31885	3.29718	1053.27	1083.48	1354.11	1354.56	14.5824
4.996597	1467.71	1471.38	609.116	606.142	14.1790	722.410	797.272	845.365	3.31645	3.29059	1053.27	1083.48	1354.11	1352.98	13.3158
5.014372	1466.25	1471.38	608.520	606.142	14.1790	722.410	796.853	845.365	3.31404	3.28862	1053.17	1083.48	1354.11	1354.56	13.3158
5.032479	1466.04	1468.00	608.282	604.345	14.1790	720.622	795.072	845.365	3.30803	3.28368	1053.17	1083.48	1354.11	1351.86	13.3158
5.051092	1466.25	1471.38	608.520	605.297	14.1790	722.410	795.072	845.365	3.30833	3.28631	1052.43	1083.48	1354.11	1351.86	13.3158
5.069325	1467.71	1471.38	608.520	606.142	14.1790	722.410	794.757	845.365	3.31645	3.29125	1053.17	1083.48	1354.11	1351.86	13.3158
5.087062	1466.04	1471.38	608.520	604.345	14.1790	720.517	794.233	845.365	3.31885	3.29158	1052.43	1083.48	1354.11	1351.86	13.3158
5.105183	1466.25	1471.38	608.520	604.345	14.1790	721.568	795.072	845.365	3.31885	3.29158	1052.43	1082.21	1354.11	1351.86	13.3158
5.123325	1467.92	1473.07	609.116	606.142	14.1790	722.410	795.805	845.365	3.32126	3.29158	1053.17	1083.48	1354.11	1354.56	13.3158
5.141511	1469.39	1473.07	609.949	606.142	14.1790	724.092	797.587	845.365	3.32607	3.29718	1053.17	1083.48	1354.11	1351.86	13.3158
5.159726	1469.39	1473.28	609.473	606.987	14.1790	723.251	797.167	845.365	3.32366	3.29421	1053.27	1083.48	1354.11	1351.86	13.3158
5.177460	1467.71	1471.38	608.997	606.142	14.1790	722.410	797.272	845.365	3.31885	3.29125	1053.17	1083.48	1354.11	1354.56	13.3158
5.203675	1466.25	1471.38	608.520	604.345	14.1790	722.410	795.072	845.365	3.31645	3.28862	1053.17	1083.48	1355.37	1354.56	13.3158
5.223935	1467.29	1471.38	608.997	606.142	14.1790	722.410	794.967	845.365	3.31404	3.28796	1053.17	1083.48	1355.37	1354.56	13.3158
5.241988	1466.25	1471.38	608.758	606.142	14.1790	720.517	794.233	845.365	3.31885	3.28862	1053.17	1083.48	1354.11	1354.56	13.3158
5.260645	1466.25	1471.38	608.520	604.345	14.1790	722.410	796.853	845.365	3.31885	3.28895	1053.17	1083.48	1354.11	1354.56	13.3158
5.278392	1469.60	1473.07	609.711	606.142	14.1790	723.251	797.587	845.365	3.32366	3.29389	1053.17	1083.48	1354.11	1354.56	13.3158
5.296532	1469.60	1473.07	609.116	606.142	14.1790	723.251	797.482	845.365	3.31885	3.29158	1053.27	1083.48	1354.11	1351.86	13.3158
5.314644	1467.92	1471.38	608.758	606.142	14.1790	722.410	797.063	845.365	3.31404	3.29059	1053.17	1083.48	1354.11	1354.56	13.3158
5.332766	1473.16	1474.12	609.949	606.987	14.1790	724.934	797.901	845.365	3.32366	3.29718	1053.27	1083.48	1354.11	1354.56	13.3158
5.351472	1469.60	1473.07	609.949	606.987	14.1790	724.092	797.272	845.365	3.32607	3.29915	1053.27	1083.48	1355.37	1354.56	13.3158
5.369718	1469.60	1473.07	608.997	606.142	14.1790	723.251	795.072	845.365	3.32366	3.29718	1053.27	1083.48	1355.37	1354.56	13.3158
5.387458	1467.92	1471.38	608.997	606.142	14.1790	722.410	795.910	845.365	3.32366	3.29718	1053.17	1083.48	1355.37	1354.56	13.3158
5.405556	1469.60	1474.12	609.949	606.987	14.1790	724.092	797.587	845.365	3.32607	3.29915	1053.27	1083.48	1354.11	1354.56	13.3158
5.431817	1469.39	1473.07	609.116	606.142	14.1790	723.251	796.853	845.365	3.32366	3.29849	1053.27	1083.48	1355.37	1354.56	13.3158
5.453394	1466.04	1471.38	608.520	604.345	14.1790	721.568	794.233	845.365	3.31885	3.29158	1053.17	1083.48	1355.37	1354.56	13.3158
5.471575	1467.92	1473.07	608.997	606.142	14.1790	723.251	795.072	845.365	3.32126	3.29158	1053.17	1083.48	1355.37	1354.56	13.3158
5.489776	1469.60	1473.07	609.711	606.142	14.1790	723.251	795.910	845.365	3.32126	3.29158	1053.17	1083.48	1355.37	1354.56	13.3158
5.507853	1469.39	1471.38	609.116	606.142	14.1790	723.251	796.853	845.365	3.31885	3.29158	1053.27	1083.48	1354.11	1354.56	13.3158
5.525596	1469.60	1473.07	609.116	606.142	14.1790	723.251	797.482	845.365	3.32366	3.29718	1053.27	1083.48	1355.37	1354.56	13.3158
5.543711	1469.60	1473.07	609.711	606.142	14.1790	723.251	797.482	845.365	3.32366	3.29849	1053.27	1083.48	1355.37	1354.56	14.5824
5.560907	1469.60	1473.07	609.711	606.142	14.1790	723.251	797.272	845.365	3.32607	3.29015	1053.17	1083.48	1355.37	1354.56	13.3158
5.580573	1469.60	1473.07	609.949	606.987	14.1790	724.092	797.482	845.365	3.32727	3.30179	1053.27	1083.48	1355.37	1354.56	13.3158
5.598312	1469.60	1473.28	609.473	606.142	14.1790	724.092	797.063	845.365	3.32607	3.29915	1053.27	1083.48	1355.37	1354.56	13.3158
5.616422	1467.71	1471.38	608.758	606.142	14.1790	722.410	795.072	845.365	3.31885	3.29158	1053.27	1083.48	1355.37	1354.56	13.3158
5.634163	1467.29	1471.38	608.282	606.142	14.1790	722.410	795.072	845.365	3.31404	3.28862	1053.17	1083.48	1355.37	1354.56	13.3158
5.660442	1469.39	1473.07	608.997	606.142	14.1790	722.410	796.853	845.365	3.31404	3.29125	1052.43	1082.21	1355.37	1354.56	13.3158
5.681947	1469.60	1473.91	609.949	606.142	14.1790	724.092	797.063	845.365	3.32607	3.29915	1053.17	1083.48	1355.37	1354.56	13.3158
5.700625	1469.39	1473.07	608.997	606.142	14.1790	722.410	796.853	845.365	3.32366	3.30113	1053.27	1083.48	1355.37	1354.56	13.3158
5.718711	1467.92	1473.07	608.758	606.142	14.1790	722.410	795.805	845.365	3.31885	3.29718	1053.17	1083.48	1355.37	1354.56	13.3158
5.737086	1469.60	1473.91	609.116	606.142	14.1790	723.251	796.853	845.365	3.31885	3.29421	1053.17	1083.48	1355.37	1354.56	13.3158
5.755479	1468.55	1471.38	609.711	606.142	14.1790	723.251	797.063	845.365	3.32607	3.29158	1053.17	1083.48	1355.37	1354.56	13.3158
5.773837	1469.39	1473.07	609.473	606.987	14.1790	723.251	797.063	845.365	3.32607	3.29158	1053.17	1083.48	1355.37	1354.56	13.3158

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	F-A		F-R		PC-1	PC-2		POJI	POFM		WLO2-1		PFJ	PFV-1		PGFT
PARAMETER																
UNITS	LBS	LBS	LBS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	LB-W	LB-W	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49	
5.792159	1464.57	1469.69	608.282	604.028	14.1790	722.410	798.425	845.365	3.31885	3.28895	1052.43	1083.48	1355.37	1354.56	13.3158	
5.811543	1355.34	1359.98	545.149	549.501	14.1790	659.733	846.737	845.365	3.25873	3.22311	1043.16	1091.15	1355.37	1354.56	13.3158	
5.830895	783.415	803.001	320.374	344.074	14.1790	431.005	927.536	845.365	2.56846	2.50649	907.620	1227.92	1371.80	1370.93	13.3158	
5.849737	436.444	448.349	183.032	201.205	14.1790	244.552	845.374	847.039	1.54868	1.44819	540.912	1405.26	1414.78	1412.89	13.3158	
5.868085	339.166	340.328	141.221	147.100	14.1790	167.153	859.522	847.039	1.04842	.903071	260.563	1464.38	1433.74	1431.80	13.3158	
5.893853	280.464	279.778	114.420	114.976	14.1790	146.962	881.949	847.039	.911328	.865874	119.020	1456.07	1435.00	1433.07	13.3158	
5.914720	188.218	190.534	72.4904	75.2430	14.1790	131.818	810.896	847.876	.803097	.862003	90.1635	1449.04	1432.48	1430.68	13.3158	
5.932979	134.338	134.625	44.1404	47.3454	14.1790	114.151	885.617	848.295	.800692	.897475	72.4705	1445.84	1431.21	1429.41	13.3158	
5.951852	99.1165	97.2825	29.6080	31.2832	14.1790	99.8491	805.132	848.295	.767020	.855669	57.3051	1445.84	1431.21	1429.41	13.3158	
5.971185	87.5858	89.0544	22.9374	22.7237	14.1790	89.7535	893.162	848.609	.798287	.832297	45.6151	1445.84	1429.79	1430.52	13.3158	
5.990526	82.5542	82.3031	18.8874	19.4478	14.1790	83.0231	801.674	850.387	.843984	.757903	38.1378	1446.16	1429.79	1430.52	13.3158	
6.008939	78.1515	77.2397	16.2668	15.9606	14.1790	76.2927	894.839	850.387	.889682	.769095	32.9773	1446.32	1431.21	1429.41	14.2658	
6.027340	78.1515	77.2397	15.0757	15.6436	14.1790	68.7210	814.250	850.387	.851200	.752966	28.7647	1446.16	1429.79	1430.52	13.3158	
6.045729	74.1682	73.8640	14.1227	15.2209	14.9302	60.7287	885.512	851.224	.860820	.797734	26.2371	1446.32	1432.48	1430.52	13.3158	
6.064099	74.1682	73.8640	14.1227	14.3756	14.1790	54.1035	827.768	851.224	.764615	.757903	25.2893	1446.32	1432.48	1430.21	13.3158	
6.082433	74.1682	73.8640	14.1227	14.3756	14.1790	51.0537	873.879	852.061	.745374	.770412	24.6574	1446.32	1432.48	1430.52	14.2658	
6.101794	73.3296	70.2774	14.1227	14.3756	14.1790	49.3711	835.209	852.061	.728539	.742432	22.8671	1446.32	1432.48	1430.52	14.8991	
6.127932	74.1682	73.8640	14.1227	14.3756	14.1790	47.3731	888.865	852.061	.716513	.737165	21.9192	1447.76	1432.48	1430.68	13.3158	
6.147299	73.9585	73.8640	13.8845	14.3756	14.1790	46.8473	806.704	852.898	.668411	.683509	21.9192	1449.04	1432.48	1430.52	13.3158	
6.165618	73.1199	70.2774	14.3610	14.3756	14.1790	46.8473	890.961	852.898	.697272	.689435	21.9192	1449.04	1432.48	1430.68	13.3158	
6.183955	73.9585	72.1762	14.3610	14.3756	14.1790	46.8473	814.040	853.735	.672319	.610761	21.7086	1449.04	1432.48	1430.68	13.3158	
6.202334	73.9585	72.1762	14.1227	14.3756	14.1790	46.8473	886.455	853.735	.670816	.610432	21.9192	1449.04	1432.48	1430.68	13.3158	
6.221704	74.1682	73.8640	14.1227	14.3756	14.1790	46.8473	821.795	853.735	.593852	.588048	21.9192	1449.04	1432.48	1430.68	13.3158	
6.241070	73.9585	70.2774	14.1227	14.3756	14.1790	46.8473	882.263	853.735	.629929	.630183	22.0245	1449.04	1432.48	1430.68	13.3158	
6.260427	72.4910	70.2774	13.8845	14.3756	14.1790	47.2679	824.415	853.735	.613393	.565664	22.0245	1449.04	1432.48	1431.80	15.5324	
6.278866	73.9585	73.8640	14.1227	14.3756	14.1790	47.2679	877.967	853.735	.617903	.547230	22.0245	1449.04	1432.48	1431.80	13.3158	
6.297263	73.1199	70.2774	14.1227	14.3756	14.1790	46.8473	835.314	853.735	.595054	.510691	22.0245	1449.04	1432.48	1431.80	15.5324	
6.315629	73.9585	73.8640	14.3610	14.3756	14.1790	46.8473	868.744	853.735	.575813	.495220	22.3405	1449.04	1432.48	1431.80	14.8991	
6.334019	72.2813	69.6445	14.3610	14.3756	14.1790	46.8473	847.051	853.735	.533724	.465923	22.7617	1449.04	1433.74	1431.80	13.3158	
6.359755	71.8620	69.8555	14.1227	14.3756	14.1790	47.2679	884.254	854.573	.514483	.496537	22.7617	1449.04	1433.74	1431.80	13.3158	
6.379880	71.8620	70.0664	14.3610	14.3756	14.1790	47.2679	824.100	854.573	.476001	.499220	22.8671	1449.04	1433.74	1430.68	13.3158	
6.397965	72.2813	70.2774	14.1227	14.3756	14.1790	47.2679	880.588	854.573	.528914	.505424	22.8671	1449.04	1433.74	1431.96	13.3158	
6.416315	72.2813	72.1762	14.1227	14.3756	14.1790	47.2679	833.532	854.573	.533724	.436626	22.8671	1449.04	1433.74	1431.96	13.3158	
6.434697	72.4910	70.2774	14.3610	14.3756	14.1790	47.2679	873.775	854.573	.524103	.418192	22.7617	1450.32	1433.74	1432.43	13.3158	
6.453098	72.4910	69.6445	14.3610	14.3756	14.1790	47.2679	843.802	854.573	.509673	.436956	22.8671	1450.32	1435.00	1433.07	13.3158	
6.471958	72.4910	70.2774	14.3610	14.3756	14.1790	48.5298	867.068	854.573	.485621	.407489	22.8671	1450.32	1435.00	1433.07	13.3158	
6.491326	70.8138	69.6445	14.1227	14.3756	14.1790	47.2679	846.946	854.573	.451950	.412267	22.8671	1450.32	1435.00	1433.23	13.3158	
6.510713	71.6524	69.6445	14.1227	14.3756	14.1790	47.2679	865.391	854.573	.394227	.369474	22.8671	1450.32	1435.00	1433.23	13.3158	
6.529659	70.8138	70.2774	14.3610	14.3756	14.1790	47.2679	851.138	854.991	.362960	.373753	22.8671	1450.32	1435.00	1433.23	13.3158	
6.548023	72.4910	69.8555	14.3610	15.2209	14.9302	46.8473	857.217	854.573	.362960	.360586	22.8671	1450.32	1435.00	1433.23	15.5324	
6.566368	70.8138	70.2774	14.3610	14.3756	14.1790	47.2679	862.037	854.573	.408658	.379020	22.8671	1450.32	1435.00	1433.23	13.3158	
6.592486	70.6041	69.0116	14.3610	14.3756	14.1790	47.2679	874.718	854.573	.389417	.365853	24.6574	1451.59	1435.00	1435.93	13.3158	
6.613395	72.2813	70.2774	14.3610	14.3756	14.1790	47.2679	834.475	854.573	.355745	.289484	23.6043	1451.59	1435.00	1435.93	13.3158	
6.631764	70.8138	69.8555	14.1227	14.3756	14.1790	47.2679	875.242	854.573	.374986	.286521	23.7096	1451.59	1435.00	1435.93	13.3158	
6.651083	70.8138	70.2774	14.3610	14.3756	14.1790	47.2679	838.667	854.573	.350935	.294751	24.6574	1451.59	1436.27	1433.23	13.3158	
6.670454	70.6041	68.8006	14.3610	14.3756	14.1790	47.2679	873.775	854.573	.370176	.331619	24.6574	1451.59	1436.27	1433.23	13.3158	
6.688862	70.8138	68.8006	14.1227	14.3756	14.1790	47.2679	844.536	854.573	.350935	.300018	23.7096	1451.59	1436.27	1433.23	13.3158	
6.707196	70.8138	68.8006	14.3610	14.3756	14.1790	47.6886	865.391	854.573	.370176	.267429	24.6574	1451.59	1436.27	1435.93	13.3158	
6.725561	70.8138	68.8006	14.3610	14.3756	14.1790	47.6886	853.758	854.573	.350935	.294422	24.6574	1451.59	1437.83	1435.93	13.3158	



TRANSPARATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	PFJC PSIA	PFVCD PSIA	PFVC-1 PSIA	PFVC-2 PSIA	TOJ DEG F	TOFM DEG F	TOBL DEG F	TFJ DEG F	TFVI DEG F	TTCJ DEG F	TTCVI DEG F	TRCAO DEG F	TRCFO DEG F	TH2OI DEG F	PH2O-OUT PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
-.245676	13.7925	1883.52	1887.18	1882.90	-91.501	-277.09	-267.74	58.5281	62.7163	60.8449	62.5812	63.2831	31.7658	60.6853	93.6937
-.227491	14.2663	1882.04	1887.18	1886.49	-91.501	-277.09	-267.19	58.5281	62.4830	60.8449	62.5812	63.2831	31.7658	60.8829	91.3219
-.209285	14.2663	1882.04	1883.60	1886.49	-90.664	-277.09	-266.64	58.5281	62.4830	60.8449	62.5526	63.3954	31.7658	60.6994	91.3219
-.200409	14.8981	1883.10	1887.18	1882.90	-90.752	-277.09	-267.19	58.5281	62.4830	60.8449	62.5526	63.3954	31.7045	60.5865	91.3219
-.190053	14.8981	1882.68	1887.18	1882.90	-90.752	-277.09	-266.64	58.5281	62.4830	60.8449	62.5526	63.3954	31.6433	60.5865	90.3731
-.184933	14.2663	1882.04	1887.18	1886.49	-90.136	-277.09	-267.19	58.5281	62.4830	60.8449	62.5526	63.3954	31.6433	60.4736	90.3731
-.179813	14.2663	1882.04	1887.18	1886.49	-90.488	-277.09	-266.64	58.5281	62.4830	60.8449	62.5526	63.3954	31.6433	60.4736	90.3731
-.174693	14.2663	1882.04	1887.18	1886.49	-89.740	-277.09	-266.71	58.5281	62.9495	60.8449	62.5526	64.2937	31.7045	60.6994	90.3731
-.169573	14.2663	1882.04	1887.18	1886.49	-90.444	-277.09	-266.64	58.5281	62.7163	60.8449	62.5526	63.3954	31.7658	60.6853	90.3731
-.164453	14.8981	1883.52	1887.18	1886.49	-90.136	-277.09	-266.64	58.5281	62.7163	60.8449	62.5812	63.3954	31.7658	60.8124	90.8475
-.159333	14.2663	1882.68	1887.18	1886.49	-90.092	-277.09	-266.64	58.5281	62.7163	60.8449	62.5812	63.3954	31.7658	60.7983	91.3219
-.154213	14.2663	1882.04	1887.18	1886.49	-90.092	-277.09	-266.71	58.5281	62.4830	60.8449	62.5812	63.3954	31.7045	60.5865	91.3219
-.149093	13.7925	1883.73	1887.18	1886.49	-90.092	-277.09	-266.64	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.6288	92.2706
-.143973	14.2663	1882.04	1887.18	1882.90	-90.752	-277.09	-265.62	58.5281	62.7163	60.8449	62.5812	63.1707	31.7658	60.7983	92.2706
-.138853	14.2663	1882.04	1887.18	1882.90	-90.092	-277.09	-266.64	58.5281	62.4830	60.8449	62.5526	63.3954	31.6433	60.6994	92.2706
-.133733	13.7925	1883.73	1887.18	1882.90	-90.092	-277.09	-265.55	58.5281	62.4830	60.8449	62.5812	63.4095	31.7045	60.9252	91.7962
-.117050	14.2663	1882.04	1883.60	1882.90	-90.312	-276.57	-265.55	58.5281	62.7163	60.8449	62.5812	63.3954	31.7658	60.0078	91.3219
-.111930	14.2663	1882.04	1887.18	1882.90	-89.740	-277.06	-265.55	58.5281	62.7163	60.8449	62.5812	63.3954	31.7964	60.5865	91.3219
-.106810	14.2663	1882.04	1887.18	1882.90	-88.686	-276.83	-265.55	58.5281	62.7163	60.8449	62.5812	63.7324	31.7658	60.8124	90.4324
-.101690	14.2663	1882.04	1887.18	1884.38	-90.488	-277.09	-265.55	58.5281	62.7163	60.8449	62.5526	63.3954	31.7658	60.6994	90.8475
-.096570	14.2663	1882.04	1887.18	1884.38	-90.092	-276.83	-265.55	58.5281	62.7163	60.8449	62.5812	63.3954	31.7964	60.6994	91.3219
-.091450	14.2663	1882.04	1887.18	1884.38	-88.730	-277.09	-265.62	58.5281	62.7163	60.8449	62.5812	63.3954	31.8883	60.6994	90.3731
-.086330	14.2663	1882.04	1883.60	1886.49	-89.388	-276.83	-265.55	58.5281	62.7163	60.8449	62.5812	63.3954	31.7964	60.6994	90.3731
-.081210	14.2663	1882.04	1887.18	1886.49	-89.388	-276.83	-265.55	58.5281	62.7163	60.8449	62.5812	63.4095	31.7964	62.0670	90.8475
-.076090	14.2663	1882.04	1887.18	1882.90	-89.388	-277.09	-264.39	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	61.1649	91.3219
-.070970	14.2663	1882.04	1887.18	1882.90	-89.432	-276.83	-265.55	58.5281	62.7163	60.8449	62.5812	63.9710	31.7658	60.9111	91.3219
-.065850	14.2663	1882.04	1887.18	1882.90	-89.081	-276.83	-265.01	58.5281	62.7163	60.8449	62.5812	63.2831	31.7964	60.6994	91.3219
-.060730	14.2663	1882.04	1883.60	1882.90	-88.686	-276.83	-265.55	58.5281	62.4830	60.8449	62.5812	63.4095	31.7658	60.8124	91.3219
-.044232	14.2663	1882.04	1883.60	1882.90	-88.730	-276.57	-265.55	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.6570	90.3731
-.039112	14.2663	1882.04	1887.18	1882.90	-88.686	-276.83	-265.55	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.6994	89.9580
-.033992	14.2663	1882.04	1887.18	1882.90	-88.081	-276.83	-266.10	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.6853	89.4244
-.028872	14.2663	1882.04	1887.18	1882.90	-88.686	-276.57	-265.01	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.6994	89.4244
-.023752	14.2663	1882.04	1887.18	1886.49	-88.730	-276.83	-265.55	58.5281	62.4830	60.8449	62.5526	63.3954	31.7658	60.5865	89.4244
-.018632	14.2663	1882.04	1887.18	1886.49	-88.686	-276.83	-265.55	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.6994	89.8987
-.013512	14.2663	1882.04	1887.18	1882.90	-87.853	-276.57	-265.01	58.5281	62.7163	60.8449	62.5812	63.5078	31.7658	60.7983	89.8987
-.008392	14.2663	1882.04	1887.18	1886.49	-87.678	-276.83	-264.66	58.5281	62.4830	60.8449	62.5812	64.0132	31.7658	60.7983	90.3731
-.003272	14.2663	1882.04	1887.18	1882.90	-88.730	-276.57	-264.19	58.5281	62.7163	60.7870	62.5812	63.3954	31.7658	60.6994	91.3219
-.001848	14.2663	1882.04	1887.18	1882.90	-87.941	-276.83	-263.37	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.7983	91.3219
-.006968	14.2663	1882.04	1887.18	1882.90	-87.941	-276.83	-263.37	58.5281	62.4830	60.8449	62.5812	63.3954	31.7045	60.8124	90.8475
-.012088	14.2663	1882.04	1887.18	1882.90	-88.686	-276.57	-263.37	58.5281	62.7163	60.8449	62.5812	63.3954	31.7658	60.9252	90.3731
-.028558	14.2663	1882.04	1887.18	1882.90	-87.678	-276.57	-263.37	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.6994	89.8987
-.033678	14.2663	1882.04	1887.18	1882.90	-87.634	-276.57	-263.37	58.5281	62.7163	60.8449	62.5812	63.5078	31.7964	60.9111	89.4244
-.038798	14.2663	1882.04	1887.18	1882.90	-87.678	-276.57	-263.37	58.5281	62.7163	60.8449	62.5812	63.3954	31.7964	60.7983	89.4244
-.043918	14.7402	1883.52	1887.18	1882.90	-86.934	-276.83	-263.37	58.5281	62.7163	60.8449	62.5812	63.3954	31.7964	60.8124	89.4244
-.049038	17.4254	1882.04	1887.18	1886.49	-85.144	-276.57	-263.37	58.7606	62.7163	60.7291	62.5812	63.3954	31.8883	60.7700	89.4244
-.054158	19.9526	1882.68	1887.18	1886.49	-82.102	-276.57	-263.92	58.5281	62.7163	60.8449	62.5812	63.3954	31.7964	60.8124	89.8987
-.059278	24.3752	1883.52	1887.18	1882.90	-77.569	-276.57	-263.92	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.8124	90.1359
-.064398	31.3251	1882.04	1887.18	1886.49	-71.365	-276.57	-263.92	58.5281	62.4830	60.8449	62.5812	63.3954	31.7658	60.7983	90.3731
-.069518	37.6431	1883.52	1887.18	1882.90	-65.940	-276.57	-263.92	58.7606	62.4830	60.7291	62.5812	61.5959	31.7658	60.9111	91.3219

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PFJC	PFVC-1		TOJ		TOBL		TFVI		TTCVI		TRCFO		PH2O-OUT	
PARAMETER	PSIA	PFVCD	PSIA	PFVC-2	TOFM	TOBL	TFJ	TFVI	TTCJ	TRCAO	TH2OI	PSIA	PSIA	PSIA	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
.074638	43.9611	1883.52	1887.18	1886.49	-57.259	-276.57	-263.92	58.9932	62.4830	60.7291	62.5526	63.2831	31.7658	60.6994	91.3219
.079758	52.8064	1883.52	1887.18	1882.90	-49.842	-276.83	-263.92	58.9932	62.4830	60.7870	62.5526	63.3954	31.7658	60.6994	91.3219
.084878	57.8608	1883.52	1887.18	1886.49	-43.116	-276.57	-263.37	58.9932	62.4830	60.8449	62.5526	63.3954	31.7658	60.6994	90.8475
.101516	67.9697	1882.04	1885.49	1882.90	-32.392	-276.57	-263.92	58.9932	62.4830	60.7291	62.3522	63.3954	31.7658	60.9252	89.9580
.106636	70.4969	1882.04	1887.18	1882.90	-27.277	-276.57	-263.44	58.9932	62.4830	60.7870	62.3522	63.3954	31.7658	60.9252	89.8987
.111756	74.2878	1882.89	1887.18	1882.90	-23.509	-276.57	-263.92	58.9932	62.4830	60.7291	62.1230	63.8447	31.7658	60.9252	90.3731
.116876	75.3934	1883.52	1887.18	1882.90	-19.726	-276.57	-263.44	58.9932	62.4830	60.7291	62.1230	63.5078	31.7964	60.7983	90.8475
.121996	78.0786	1882.04	1887.18	1882.90	-16.514	-276.57	-263.37	58.9932	62.4830	60.8449	62.1230	63.3954	31.7658	60.8124	91.3219
.127116	79.3422	1883.52	1887.18	1886.49	-14.021	-276.57	-263.37	58.9932	61.9869	60.7870	62.1230	63.3954	31.7658	60.8124	91.3219
.132236	80.6058	1882.04	1887.18	1884.38	-11.538	-276.57	-263.37	58.7606	61.9869	60.7580	62.1230	63.3954	31.7658	60.8124	91.3219
.137356	81.8694	1883.52	1887.18	1882.90	-10.340	-276.57	-263.37	58.7606	61.8994	60.7291	62.0944	63.3954	31.7045	60.7983	91.3219
.142476	83.1330	1883.52	1883.60	1886.49	-8.1821	-276.57	-263.44	58.7606	61.7826	60.7580	61.9799	63.3954	31.7658	60.9252	91.7962
.147596	83.1330	1883.52	1883.60	1886.49	-6.5308	-276.57	-263.44	58.7606	61.8994	60.7291	61.8652	63.3954	31.6433	60.5865	93.2193
.152716	83.1330	1883.52	1887.18	1882.90	-4.8080	-276.57	-263.37	58.5281	61.7826	60.8739	61.8652	63.6201	31.7658	60.6853	93.2193
.157836	83.1330	1883.52	1887.18	1882.90	-4.0821	-276.57	-263.37	58.5281	61.7826	60.8739	61.7506	63.5078	31.7658	60.8124	93.2193
.174432	83.1330	1883.52	1887.18	1882.90	-2.4050	-276.57	-263.37	58.2953	61.5489	60.8449	61.6933	63.3954	31.7658	60.6994	92.2706
.179552	83.1330	1883.52	1885.49	1882.90	-1.4922	-276.57	-263.37	58.2953	61.5489	60.8449	61.2059	63.3954	31.7045	60.9111	91.3219
.184672	83.1330	1883.52	1887.18	1882.90	-.69478	-276.57	-263.37	58.2953	61.3154	60.8449	61.2059	63.3954	31.7045	60.8124	91.3219
.189792	83.1330	1883.52	1887.18	1886.49	.063660	-276.57	-263.37	58.2953	61.0816	60.8449	61.1773	63.3954	31.7658	60.7983	90.3731
.194912	83.1330	1883.52	1887.18	1886.49	-.54301	-276.57	-263.37	58.2953	61.0816	60.8449	60.9478	62.9460	31.7658	60.9252	89.8987
.200032	84.3966	1882.89	1887.18	1882.90	1.16168	-276.57	-263.37	58.2953	60.8478	60.7870	60.7183	63.6201	31.7045	60.7983	89.8987
.205152	83.1330	1883.52	1887.18	1882.90	1.84218	-276.57	-262.28	58.0626	60.6139	60.8739	60.4887	63.3954	31.7658	60.6994	89.8987
.210272	83.1330	1883.52	1887.18	1882.90	3.12547	-276.57	-262.28	58.0626	60.1167	60.8739	60.2592	63.3954	31.7964	60.7559	89.8987
.215392	83.1330	1883.52	1887.18	1882.90	3.38936	-276.57	-263.37	58.0626	60.0289	60.8449	60.0294	63.3954	31.7658	60.7983	89.8987
.220512	83.1330	1883.52	1887.18	1886.49	3.38936	-276.57	-263.37	58.0626	59.9119	60.8739	59.9145	63.3954	31.7658	60.8124	90.8475
.225632	83.1330	1883.52	1887.18	1882.90	4.55663	-276.57	-263.37	58.0626	59.6778	60.8449	59.8571	63.3954	31.7964	60.3607	91.3219
.230752	85.5023	1882.04	1887.18	1882.90	4.89510	-276.57	-263.37	58.0626	59.6778	60.8449	59.8571	63.3954	31.7964	60.6994	91.3219
.247291	105.720	1876.98	1880.44	1878.89	6.05966	-276.57	-263.37	57.4805	59.6778	60.8449	59.3685	63.3954	31.7658	60.4736	92.2706
.252411	134.941	1873.82	1875.39	1872.97	6.39737	-276.57	-263.37	57.4805	59.4435	60.8449	59.3398	63.3954	31.7658	61.0239	93.6937
.257531	186.591	1860.33	1863.61	1860.92	6.99736	-276.31	-263.37	57.4805	59.2093	60.8449	59.2248	63.3954	31.7045	60.6994	95.1168
.262651	275.202	1839.87	1848.46	1845.92	4.59424	-276.31	-263.37	57.4805	59.2093	60.8449	59.1387	62.7211	31.6433	60.6994	96.0655
.267771	398.403	1812.67	1828.26	1822.04	7.93379	-276.31	-262.83	57.3640	59.2093	60.7580	59.1387	63.3954	31.6433	60.7559	97.0143
.272891	553.195	1775.77	1806.38	1801.75	8.15836	-276.57	-262.83	57.3640	59.2093	60.7870	59.1099	63.3954	31.7045	60.7983	97.4886
.278011	719.992	1734.44	1792.91	1787.38	8.49507	-276.57	-262.28	57.3640	59.2093	60.8449	59.1099	63.3954	31.7045	60.8124	97.4886
.283131	882.997	1686.36	1784.49	1781.46	9.05594	-276.57	-262.83	57.3640	59.2093	60.7870	59.1099	63.3954	31.6433	60.7983	97.4886
.288251	1030.84	1637.23	1787.86	1788.22	9.98116	-276.57	-263.37	57.3640	59.2093	60.7580	58.9086	63.3954	31.6433	60.7700	97.8444
.293371	1153.41	1583.46	1801.33	1801.75	9.69107	-276.31	-263.37	57.3640	58.9749	60.7870	58.9086	63.3954	31.7964	61.4893	98.9118
.298491	1246.92	1532.85	1819.84	1821.40	10.3257	-276.57	-263.37	57.1310	59.2093	60.8739	58.9086	63.3954	31.7045	60.4736	98.9118
.303611	1307.57	1489.00	1836.68	1838.31	10.4003	-276.31	-262.28	57.3640	58.9749	60.7870	58.9086	63.3954	31.7658	60.6853	97.7258
.320116	1351.80	1419.83	1860.24	1859.44	10.8853	-276.57	-263.37	57.1310	58.9749	60.8739	58.9086	63.3954	31.7658	60.6994	95.1168
.325236	1348.01	1391.15	1866.98	1862.61	11.1835	-276.31	-263.37	57.1310	58.9749	60.6739	58.8798	63.3954	31.7658	60.6994	93.2193
.330356	1335.37	1369.01	1868.87	1865.99	11.4817	-276.57	-263.37	57.1310	58.9749	60.8739	58.8798	63.3954	31.7658	60.5865	92.2706
.335476	1316.42	1348.98	1873.71	1867.68	12.0405	-276.57	-263.37	57.1310	58.9749	60.9609	58.8798	63.3954	31.7658	60.7559	91.3219
.340596	1296.20	1335.49	1870.13	1867.68	12.7107	-276.57	-262.28	57.1310	58.9749	60.9609	58.6785	63.3954	31.7658	60.8124	91.3219
.345716	1275.98	1323.47	1873.71	1869.16	12.7107	-276.31	-262.28	57.1310	58.9749	60.8739	58.6785	63.3954	31.7658	60.9252	90.1359
.350836	1258.13	1313.56	1873.71	1867.68	12.9340	-276.57	-262.28	57.1310	58.7404	60.8739	58.6785	63.3954	31.7658	61.1649	89.8987
.355956	1245.65	1307.65	1870.13	1867.47	13.2688	-276.31	-262.28	57.1310	58.9749	60.8739	58.6498	63.3954	31.7658	60.8124	89.4244
.361076	1235.54	1303.22	1869.50	1865.78	13.8638	-276.31	-262.28	57.1310	58.7404	60.8449	58.6785	63.9570	31.7045	60.7983	89.4244
.366196	1226.70	1298.16	1868.66	1865.99	13.5663	-276.57	-261.74	56.8979	58.7404	60.8449	58.6785	63.3954	31.7045	60.7559	89.8987

## TRANSPARATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	PFJC PSIA	PFVCD PSIA	PFVC-1 PSIA	PFVC-2 PSIA	TOJ DEG F	TOFM DEG F	TOBL DEG F	TFJ DEG F	TFVI DEG F	TTCJ DEG F	TTCVI DEG F	TRCAO DEG F	TRCFO DEG F	TH20I DEG F	PH20-OUT PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
.371316	1222.91	1295.00	1868.66	1865.78	13.8638	-276.57	-262.28	56.8979	58.7404	60.7291	58.6785	63.3954	31.6433	60.8124	90.1359
.376436	1217.70	1293.52	1868.66	1865.78	14.4584	-276.57	-262.28	56.8979	58.7404	60.7291	58.6785	63.3954	31.7045	60.7983	91.3219
.393074	1215.33	1289.73	1866.98	1864.09	15.0899	-276.31	-262.28	56.6647	58.7404	60.4102	58.6785	63.3954	31.7658	60.4736	92.2706
.398194	1215.33	1288.04	1866.98	1864.30	15.3127	-276.31	-262.28	56.6647	58.9749	60.3812	58.6785	63.3954	31.7964	60.8124	92.2706
.403314	1214.06	1286.36	1866.98	1864.30	15.3127	-276.31	-261.74	56.6647	58.7404	60.1783	58.6785	63.3954	31.7658	60.9111	92.2706
.408434	1212.80	1285.93	1868.66	1865.78	16.7971	-276.31	-262.28	56.6647	58.7404	60.1783	58.6785	63.6201	31.7045	60.7983	92.2706
.413554	1212.80	1284.67	1868.66	1865.78	15.9438	-276.31	-261.74	56.4315	58.9749	60.1783	58.6785	64.2937	31.7658	60.9111	92.2706
.418674	1211.54	1283.19	1868.66	1865.78	15.9438	-276.31	-261.74	56.4315	58.7404	60.1493	58.6785	63.3954	31.7045	60.6994	92.2706
.423794	1211.54	1282.98	1868.66	1865.78	16.2406	-276.31	-262.28	56.4315	58.7404	60.0333	58.6785	63.3954	31.6433	60.8124	92.2706
.428914	1210.27	1282.98	1868.66	1865.99	16.2406	-276.31	-261.74	56.4315	58.7404	59.9172	58.7647	63.3954	31.6433	60.8124	92.2706
.434034	1210.27	1281.51	1868.66	1865.78	16.7971	-276.31	-261.27	56.4315	58.7404	59.9172	58.6785	63.3954	31.7045	60.7983	92.2706
.439154	1210.27	1281.29	1868.66	1865.78	16.8342	-276.31	-261.20	56.1983	58.7404	59.7142	58.8222	63.5078	31.7045	60.9111	92.7450
.444274	1210.27	1281.29	1868.66	1865.78	16.8342	-276.31	-260.05	56.1983	58.7404	59.6852	58.8222	63.3954	31.7045	60.4595	92.2706
.449394	1210.27	1280.45	1868.66	1865.78	17.4646	-276.31	-261.20	56.1983	58.7404	59.4821	58.8798	63.3954	31.7658	60.6994	92.2706
.465837	1207.27	1280.03	1866.98	1864.30	17.6871	-276.31	-262.28	56.1983	58.7404	59.4530	58.8222	63.3954	31.7658	60.6994	92.2706
.470957	1207.11	1280.03	1866.98	1865.15	17.9836	-276.31	-262.28	56.1983	58.7404	59.2498	58.8222	63.3954	31.7658	60.6994	91.7962
.476077	1207.11	1280.03	1868.66	1865.99	18.0207	-276.31	-261.27	56.1983	58.7404	59.2498	58.7647	63.3954	31.7045	60.6994	91.7962
.481197	1206.48	1280.03	1868.66	1865.99	18.0207	-276.31	-261.20	55.6732	58.7404	59.2498	58.6785	63.3954	31.7045	60.8124	91.3219
.486317	1206.48	1280.03	1868.66	1865.78	18.5767	-276.31	-261.74	55.6149	58.7404	59.2498	58.7647	63.3954	31.7658	60.9252	91.3219
.491437	1207.11	1280.03	1868.66	1865.78	18.5767	-276.31	-261.74	55.6149	58.7404	59.2208	58.6785	63.3954	31.7045	60.5865	91.3219
.496557	1206.48	1280.03	1866.98	1865.36	18.0207	-276.31	-261.20	55.6149	58.7404	59.0176	58.6785	63.3954	31.7658	60.4172	91.3219
.501677	1206.48	1280.03	1868.66	1865.78	14.4584	-276.31	-261.20	55.6149	58.7404	59.0176	58.6785	61.1454	31.7658	60.7983	92.2706
.506797	1206.48	1280.03	1868.66	1865.78	7.93379	-276.31	-261.20	55.4980	58.7404	59.2208	58.6785	63.5078	31.7658	60.9252	92.2706
.511917	1206.48	1280.03	1866.98	1865.36	-4.0821	-276.18	-261.20	55.4980	58.9749	59.2208	58.6785	63.5078	31.7964	60.7700	92.2706
.517037	1206.48	1280.03	1868.66	1865.78	-22.521	-276.31	-262.28	55.4980	58.7404	59.2208	58.6785	63.5078	31.7658	60.8124	92.2706
.522157	1206.48	1280.03	1868.66	1865.78	-49.306	-276.31	-261.27	55.4980	58.7404	59.1627	58.6785	63.3954	31.7658	60.6994	91.7962
.538726	1206.48	1280.03	1866.98	1864.30	-113.16	-276.18	-261.20	55.4980	58.7404	59.0176	58.6785	63.3954	31.7658	60.6994	91.3219
.543846	1206.48	1280.03	1868.66	1865.78	-151.99	-276.31	-261.20	55.4980	58.7404	59.0176	58.8222	62.8335	31.7045	60.6994	91.3219
.548966	1206.48	1280.03	1866.98	1864.94	-180.72	-276.18	-261.74	55.4980	58.7404	59.0176	58.8222	63.3954	31.7658	60.6853	92.2706
.554086	1206.48	1280.03	1868.66	1865.78	-207.10	-276.31	-261.20	55.4980	58.7404	59.0176	58.8798	63.3954	31.7045	60.7559	92.2706
.559206	1206.48	1280.03	1866.98	1864.30	-228.25	-276.31	-261.20	55.2645	58.9749	58.9885	58.6785	63.3954	31.7658	60.6994	91.7962
.564326	1206.48	1280.03	1866.98	1865.36	-243.32	-276.31	-261.20	55.4980	58.9749	58.9885	58.8798	63.3954	31.7658	60.7983	91.3219
.569446	1206.48	1280.03	1866.98	1864.94	-252.22	-276.31	-261.20	55.4980	58.9749	59.0176	58.8798	63.3954	31.7658	60.7559	91.3219
.574566	1206.48	1280.03	1868.66	1865.36	-256.55	-276.31	-261.20	55.4980	58.7404	59.0176	58.6785	63.5078	31.7658	60.9252	91.3219
.579686	1206.48	1280.03	1868.66	1865.78	-258.03	-276.18	-259.98	55.6149	58.7404	58.8723	58.8222	63.3954	31.7658	60.7983	91.3219
.584806	1205.22	1276.44	1868.66	1865.78	-257.76	-276.31	-261.20	56.1983	58.7404	58.9885	58.7647	63.3954	31.7658	60.2620	91.3219
.589926	1206.48	1280.03	1868.66	1865.78	-257.02	-276.31	-261.20	56.4315	58.7404	59.0176	58.6785	63.3954	31.7658	61.1649	91.3219
.595046	1206.48	1280.03	1868.66	1865.99	-256.01	-276.18	-261.20	57.1310	58.7404	58.9885	58.6785	63.5078	31.7658	60.5865	91.3219
.611667	1205.22	1276.44	1866.98	1864.30	-253.48	-276.11	-261.20	58.0626	58.7404	58.9885	58.6498	63.3954	31.7658	60.7559	90.8475
.616787	1205.22	1276.44	1868.66	1865.78	-252.75	-276.31	-261.27	58.5281	58.7404	58.9885	58.6498	63.5078	31.7658	60.6853	89.8987
.621907	1205.22	1276.44	1868.66	1865.78	-252.75	-276.18	-261.74	58.9932	58.7404	58.9885	58.4483	63.3954	31.7964	60.6994	89.8987
.627027	1205.22	1276.44	1868.66	1865.78	-252.75	-276.18	-261.74	59.2256	58.7404	59.0176	58.4483	63.5078	31.7964	60.8124	89.8987
.632147	1205.22	1276.44	1868.66	1865.78	-252.75	-276.18	-261.47	59.9225	58.7404	59.0176	58.3620	63.3954	31.7658	60.6994	89.8987
.637267	1205.22	1276.44	1868.66	1865.99	-252.75	-276.18	-261.20	60.1547	58.2128	58.9885	58.4194	63.3954	31.7658	60.6994	89.8987
.642387	1205.22	1276.44	1868.66	1865.78	-252.75	-276.18	-261.27	60.6190	58.0368	58.9885	58.1893	63.3954	31.8883	60.6853	90.3731
.647507	1205.22	1276.44	1868.66	1865.78	-253.28	-276.18	-261.74	61.0829	58.0368	59.1046	58.0166	63.3954	31.7964	60.9252	90.3731
.652627	1205.22	1276.44	1868.66	1865.78	-253.35	-276.18	-262.28	62.0099	57.5673	59.1627	57.2677	63.3954	31.7658	61.0239	90.2545
.657747	1205.22	1276.44	1868.66	1865.78	-253.75	-276.18	-261.74	62.7045	56.3337	59.2208	56.3738	63.3954	31.7964	60.4736	90.8475
.662867	1206.48	1280.03	1868.66	1865.78	-255.95	-276.11	-261.20	62.9359	55.6868	59.0176	55.3633	61.0327	31.7658	60.6570	91.3219

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PFJC	PFVC-1	PFVC-2	TOJ	TOFM	TOBL	TFJ	TFVI	TTCJ	TTCVI	TRCAO	TRCFO	TH2OI	PH2O-OUT
PARAMETER	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221
.667987	1207.11	1280.03	1868.66	1865.78	-254.88	-276.31	-262.28	62.7045	54.9803	59.2208	54.4963	63.8447	31.8883	60.6853
.684163	1212.80	1282.98	1866.98	1864.30	-255.48	-276.18	-261.74	60.1547	54.0376	59.0176	53.8021	63.3954	31.7964	60.4736
.689283	1217.22	1284.88	1868.66	1865.78	-255.95	-276.31	-261.74	59.2256	54.2734	59.2208	53.8309	63.3954	31.7658	60.6853
.694403	1222.91	1289.94	1866.98	1864.94	-255.95	-276.31	-261.74	58.5281	54.3912	59.2208	54.4963	63.3954	31.7658	60.6994
.699523	1226.70	1295.00	1868.66	1865.78	-256.55	-276.18	-261.20	58.5281	55.2159	59.2208	55.1901	63.3954	31.7658	60.2902
.704643	1231.75	1299.85	1868.66	1865.78	-256.01	-276.18	-261.20	58.7606	55.9220	59.2208	56.1718	63.3954	31.7658	60.8124
.709763	1236.81	1303.44	1868.66	1865.78	-256.48	-276.18	-261.74	59.2256	56.8627	59.2498	56.8353	63.3954	31.7964	60.6994
.714883	1240.60	1307.44	1868.66	1865.78	-256.15	-276.18	-261.20	59.9225	57.5673	59.2498	57.4982	63.3954	31.7658	60.8124
.720003	1243.13	1310.18	1868.66	1865.78	-255.95	-276.18	-261.20	60.1547	58.0368	59.2498	58.2181	63.5078	31.9496	60.9111
.725123	1245.65	1311.87	1868.66	1865.78	-257.62	-276.18	-261.20	60.3670	58.7404	59.2498	58.6785	63.3954	31.7658	60.8124
.730243	1246.92	1315.24	1868.66	1865.78	-257.02	-276.18	-262.28	60.6190	58.9749	59.2498	58.8798	63.5078	31.8883	60.9252
.735363	1247.86	1316.93	1868.66	1865.78	-257.76	-276.18	-261.20	60.6190	59.2093	59.2498	59.0236	63.3954	31.7964	60.7983
.740483	1250.71	1318.41	1868.66	1865.78	-257.62	-276.18	-261.74	60.3870	59.2093	59.4530	59.1099	63.3954	31.9496	60.7983
.757012	1251.97	1320.52	1866.98	1864.09	-257.89	-276.18	-261.20	59.9225	59.2093	59.4821	58.9086	63.3954	32.0414	60.7983
.762132	1251.97	1320.52	1868.66	1865.78	-257.89	-276.14	-261.74	59.3999	58.9749	59.4821	58.8222	63.3954	32.1891	60.7700
.767252	1253.23	1321.78	1868.66	1865.78	-258.03	-276.18	-261.74	59.3417	58.7404	59.2498	58.6498	63.2831	32.3389	60.4736
.772372	1253.23	1321.99	1868.66	1865.78	-258.03	-276.11	-261.74	59.2256	58.7404	59.6852	58.4483	63.3954	32.4287	60.9252
.777492	1253.23	1321.99	1868.66	1865.78	-258.03	-276.18	-261.20	58.9932	58.7404	59.4821	58.4483	63.2831	32.6682	60.9252
.782612	1253.23	1321.99	1868.66	1865.78	-258.03	-276.18	-261.74	58.9932	58.7404	59.6271	58.4194	63.2831	32.8776	60.8853
.787732	1253.23	1321.99	1868.66	1865.78	-261.40	-276.31	-262.28	58.9932	58.7404	59.6852	58.4194	61.9335	32.9075	60.7983
.792852	1253.23	1323.47	1868.66	1865.78	-258.03	-276.18	-262.28	58.7606	58.7404	59.6852	58.4194	64.0552	33.4160	60.9252
.797972	1253.23	1323.05	1868.66	1865.78	-259.71	-276.18	-261.20	58.7606	58.7404	59.6852	58.4194	63.0583	33.6251	60.6994
.803092	1253.23	1323.47	1866.98	1865.36	-260.25	-276.18	-260.05	58.7606	58.7404	59.6852	58.4483	63.1144	33.8643	60.7983
.808212	1253.23	1323.47	1868.66	1865.78	-259.71	-276.11	-262.28	58.7606	58.7404	59.7142	58.4483	63.1144	34.1929	60.8124
.813332	1253.23	1323.47	1866.98	1864.94	-260.25	-276.18	-261.74	58.7606	58.9749	59.7142	58.6785	63.1144	34.5811	60.8124
.829515	1253.23	1323.68	1866.98	1864.30	-259.71	-276.08	-262.28	58.9932	59.2093	59.9172	59.1099	63.0583	34.8198	60.8124
.834635	1253.23	1323.68	1868.66	1865.78	-263.50	-276.08	-261.20	58.9932	59.4435	59.9172	59.2823	63.3954	35.3867	60.6429
.839755	1253.23	1323.68	1868.66	1865.78	-258.03	-276.18	-261.74	58.9932	59.6778	59.9462	59.3685	63.2831	35.7444	60.6994
.844875	1254.50	1323.47	1868.66	1865.78	-260.45	-276.18	-261.20	58.9932	59.9119	59.9462	59.8571	63.2831	35.7742	60.6994
.849995	1254.50	1323.68	1868.66	1865.78	-260.86	-276.18	-261.20	59.2256	60.0289	60.1783	59.9145	63.9078	36.2212	60.8829
.855115	1254.50	1323.68	1868.66	1865.99	-260.86	-276.18	-261.20	59.2256	60.1167	60.1493	60.0581	63.8447	36.4892	60.8124
.860235	1254.50	1323.68	1868.66	1865.99	-260.79	-276.18	-261.74	59.2256	60.6139	60.1783	60.2878	64.2937	36.7274	61.0380
.865355	1254.50	1323.47	1868.66	1865.78	-260.32	-276.18	-261.20	59.3417	60.6139	59.9462	60.5175	64.9107	37.2333	60.9252
.870475	1254.50	1323.68	1868.66	1865.78	-260.79	-276.14	-261.74	59.3999	60.6139	60.1493	60.7183	65.7513	37.4117	60.8124
.875595	1254.50	1323.68	1868.66	1865.78	-260.79	-276.08	-261.20	59.9225	60.8478	60.1783	60.7470	67.2062	37.5902	61.1931
.880715	1254.50	1323.68	1868.66	1865.78	-260.79	-276.18	-261.74	59.9225	61.0816	60.1493	60.9478	68.4911	37.8875	61.6019
.885835	1254.50	1323.68	1868.66	1865.78	-260.79	-276.18	-261.74	60.1547	61.3154	60.1493	61.1773	70.2198	38.1252	60.8219
.902437	1254.50	1323.47	1866.98	1864.30	-262.35	-276.08	-261.74	60.1547	61.5489	60.1493	61.2059	73.3335	38.6006	60.9111
.907557	1254.50	1323.68	1868.66	1865.78	-261.40	-276.11	-261.20	60.3870	61.5489	60.1783	61.4066	75.4396	38.8380	60.8124
.912677	1254.50	1323.68	1868.66	1865.78	-261.33	-276.18	-261.20	60.3870	61.5489	60.1783	61.6933	77.3747	39.1349	60.6994
.917797	1254.50	1323.68	1868.66	1865.78	-261.33	-276.18	-261.74	60.6190	61.5489	60.1783	61.6933	79.4155	39.3129	60.6994
.922917	1254.50	1323.68	1868.66	1865.78	-261.33	-276.18	-259.91	60.8510	61.7826	60.3812	61.6933	81.3964	39.5798	60.6853
.928037	1254.50	1323.68	1868.66	1865.78	-261.87	-276.18	-261.74	60.8510	61.7826	60.3812	61.6933	83.3726	39.7875	60.6994
.933157	1254.50	1323.68	1868.66	1865.78	-261.40	-276.18	-261.74	60.8510	61.7826	60.1783	61.6933	85.2348	40.0543	60.6994
.938277	1254.50	1323.68	1868.66	1865.99	-261.87	-276.18	-261.20	61.0829	61.7826	60.6711	61.7506	87.0384	40.2618	60.6994
.943397	1254.50	1323.68	1868.66	1865.78	-261.94	-276.11	-261.20	61.0829	61.7826	60.6711	61.8939	88.7291	40.4987	60.2620
.948517	1254.50	1323.68	1868.66	1865.78	-261.87	-276.18	-261.74	61.0829	61.8994	60.6711	61.8652	90.2534	40.5283	60.9252
.953637	1254.50	1323.68	1868.66	1865.78	-261.94	-276.18	-261.20	61.1987	61.8994	60.4102	61.8939	91.6664	40.7356	60.4736
.958757	1254.50	1323.68	1868.66	1865.78	-263.03	-276.18	-261.20	61.1987	61.8994	60.4102	61.8652	93.0770	41.0318	60.9111

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PFJC	PFVCD	PFVC-1	PFVC-2	TOJ	TOFM	TOBL	TFJ	TFVI	TTCJ	TTCVI	TRCAO	TRCFO	TH201	PH20-OUT
PARAMETER	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
.975278	1254.50	1323.68	1866.98	1864.30	-262.35	-276.11	-259.98	61.1987	61.8994	60.6711	62.0944	95.4591	41.2094	61.8275	93.6937
.980398	1254.50	1323.68	1866.66	1865.78	-261.94	-276.18	-261.20	61.1987	61.8994	60.6711	62.0944	96.6342	41.4460	60.4736	93.6937
.985518	1254.50	1323.68	1866.66	1865.78	-262.15	-276.18	-260.05	61.2567	61.8994	60.6711	61.9799	97.9425	41.4757	61.1649	93.6937
.990638	1254.50	1323.68	1866.66	1865.99	-262.08	-276.18	-261.20	61.7783	61.9577	60.6711	62.0944	99.1276	41.7123	60.7983	93.9309
.995758	1255.76	1323.68	1866.66	1865.99	-263.71	-276.18	-261.74	61.7783	61.8994	60.6711	62.0372	97.9425	41.8601	60.8124	93.6937
1.000878	1255.76	1323.68	1866.66	1865.78	-261.94	-276.18	-261.20	61.7783	61.8994	60.6711	62.1230	102.245	41.9489	60.8124	93.6937
1.005998	1255.76	1323.68	1866.66	1865.99	-262.35	-276.31	-261.20	61.7783	62.2496	60.6711	62.1230	102.566	42.1558	60.8124	93.6937
1.011118	1255.76	1323.68	1866.66	1865.78	-262.21	-276.18	-261.74	61.7783	61.9869	60.7291	62.0944	103.853	42.3922	60.9111	93.6937
1.016238	1255.76	1323.68	1866.66	1865.78	-262.21	-276.31	-262.28	61.7783	62.2496	60.7580	62.1230	104.816	42.4218	60.8124	93.6937
1.021358	1255.76	1323.68	1866.66	1865.99	-262.35	-276.31	-259.85	62.0099	62.4830	60.8449	62.1230	105.885	42.4218	60.6994	93.6937
1.026478	1255.76	1323.68	1866.66	1865.99	-262.21	-276.18	-261.74	62.0099	61.9577	60.8449	62.1230	106.846	42.6581	60.8124	93.6937
1.031598	1255.76	1323.68	1866.66	1865.78	-262.35	-276.18	-261.20	62.0099	61.9577	60.8449	62.1230	107.793	42.9240	60.8124	93.6937
1.047745	1254.50	1323.68	1866.98	1864.30	-262.35	-276.18	-261.20	62.0099	62.4830	60.8449	62.1230	109.404	42.9830	60.6853	94.1088
1.052865	1255.76	1323.68	1866.98	1865.36	-262.35	-276.18	-261.74	62.0099	61.9577	60.8739	62.1230	110.149	43.1011	60.8124	95.1168
1.057985	1255.76	1323.68	1866.66	1865.78	-269.17	-276.31	-261.20	62.0099	62.4830	60.8739	62.1230	110.255	43.1306	60.7983	95.5912
1.063105	1254.50	1323.68	1866.66	1865.78	-261.87	-276.31	-261.74	62.0099	62.2496	60.9609	62.1230	111.637	43.2781	60.6994	95.5912
1.068225	1255.76	1323.68	1866.66	1865.99	-262.35	-276.31	-261.74	62.0099	62.4830	60.9609	62.1230	112.035	43.3667	60.6994	95.5912
1.073345	1255.76	1323.68	1866.66	1865.99	-263.50	-276.31	-259.98	62.0099	62.4830	61.0187	62.1230	112.698	43.3667	60.6994	95.1168
1.078465	1255.76	1325.15	1866.66	1865.78	-262.35	-276.18	-261.74	62.0099	61.9869	60.9609	62.1230	113.122	43.3667	60.9111	95.1168
1.083585	1255.76	1325.37	1866.66	1865.78	-262.35	-276.18	-261.20	62.0099	61.8994	61.0767	62.1230	113.651	43.6028	60.9111	94.1088
1.088705	1255.76	1325.37	1866.66	1865.78	-262.35	-276.31	-261.20	62.0099	61.8994	61.0767	62.1230	114.075	43.6913	60.8124	95.1168
1.093825	1255.76	1325.37	1866.66	1865.78	-262.35	-276.31	-261.74	62.0099	61.8994	61.0767	62.1230	114.499	43.8093	60.8124	94.0495
1.098945	1255.76	1325.37	1866.66	1865.78	-263.57	-276.31	-259.98	62.0099	61.9577	61.0767	62.0944	114.922	43.8388	60.8124	93.9309
1.104065	1255.76	1325.37	1866.66	1865.78	-263.50	-276.31	-261.20	62.2415	61.9577	60.9609	62.0944	115.345	43.8388	61.0380	93.6937
1.120593	1255.76	1325.15	1866.66	1865.78	-263.50	-276.31	-261.74	62.2415	61.8994	61.0767	62.1230	115.873	44.0452	61.0380	93.2193
1.125713	1255.76	1325.37	1866.66	1865.99	-263.57	-276.31	-261.20	62.2415	61.9577	61.0767	62.0944	116.085	44.0747	60.0219	93.6937
1.130833	1255.76	1325.37	1866.66	1865.99	-263.50	-276.31	-260.05	62.2415	62.4830	61.0767	62.1230	116.283	44.2810	61.0380	93.6937
1.135953	1255.76	1325.37	1866.66	1865.78	-263.50	-276.31	-261.74	62.2415	61.9577	61.1057	61.8939	116.613	44.3105	60.6994	93.6937
1.141073	1255.76	1325.37	1866.66	1865.78	-261.40	-276.31	-261.20	62.2415	61.9577	61.1057	62.0944	117.101	44.3105	60.8124	93.9309
1.146193	1255.76	1325.37	1866.66	1865.99	-262.35	-276.31	-261.20	62.2415	61.9577	61.1057	61.8939	117.088	44.8115	60.8124	94.1088
1.151313	1255.76	1325.37	1866.66	1865.78	-263.71	-276.18	-261.20	62.2415	61.9577	61.1057	62.0944	117.035	44.8115	60.8124	95.1168
1.156433	1255.76	1325.37	1866.66	1865.99	-263.57	-276.31	-261.20	62.2415	61.9577	61.1057	61.8939	117.457	44.8115	60.7983	95.1168
1.161553	1255.76	1325.37	1866.66	1865.78	-264.59	-276.31	-259.98	62.2415	61.9577	61.1057	61.8939	117.668	44.8115	60.8124	95.1168
1.166673	1255.76	1325.37	1866.66	1865.99	-264.66	-276.31	-259.58	62.2415	61.9577	61.1057	61.8939	117.932	44.8115	60.8829	95.5912
1.171793	1255.76	1325.37	1866.66	1865.99	-263.71	-276.31	-261.20	62.2415	62.2496	61.1057	61.8939	118.195	44.8115	60.9111	95.1168
1.176913	1255.76	1325.37	1866.66	1865.99	-263.71	-276.31	-261.20	62.2415	61.9577	61.1057	61.8939	118.301	44.8704	60.7983	95.1168
1.193528	1255.76	1325.37	1866.66	1865.78	-264.05	-276.31	-261.20	62.2415	61.8994	61.3083	61.8939	118.722	44.8115	60.6994	95.1168
1.198648	1255.76	1325.37	1866.66	1865.99	-263.71	-276.31	-261.20	62.4731	61.8994	61.3373	61.8652	119.038	44.8704	60.6994	95.1168
1.203768	1255.76	1325.37	1866.66	1865.99	-264.05	-276.31	-261.20	62.4731	61.8994	61.3373	61.8939	119.038	44.9882	60.6994	95.1168
1.208888	1255.76	1325.37	1866.66	1865.99	-263.57	-276.31	-261.20	62.4731	61.8994	61.4243	61.8652	119.249	44.9882	60.6994	95.1168
1.214008	1255.76	1325.37	1866.66	1865.99	-265.14	-276.31	-261.20	62.4731	61.8994	61.4821	61.8652	117.352	45.0178	60.7983	95.1168
1.219128	1255.76	1325.37	1869.50	1865.78	-264.05	-276.31	-261.20	62.4731	61.8994	61.5400	61.8652	119.985	45.1649	60.8829	95.1168
1.224248	1255.76	1325.37	1866.66	1865.99	-264.59	-276.31	-261.20	62.4731	61.8994	61.5400	61.8652	119.354	45.2238	60.8124	94.1088
1.229368	1255.76	1325.37	1866.66	1865.99	-265.14	-276.31	-259.85	62.4731	61.8994	61.5400	61.8939	119.565	45.2238	60.8124	94.1088
1.234488	1255.76	1325.37	1866.66	1865.99	-264.59	-276.31	-261.74	62.4731	61.8994	61.5400	61.8939	119.617	45.2238	60.6994	95.5912
1.239608	1255.76	1325.37	1866.66	1865.78	-264.80	-276.57	-259.58	62.4731	61.8994	61.5400	61.8939	119.880	45.2532	60.8124	96.5399
1.244728	1255.76	1325.37	1866.66	1865.78	-264.80	-276.57	-261.74	62.4731	61.8994	61.5690	61.8652	119.880	45.2532	60.7983	97.0143
1.249848	1255.76	1325.37	1866.66	1865.78	-264.66	-276.57	-261.20	62.4731	61.8994	61.5690	61.8652	120.091	45.2532	60.7983	97.0143
1.265986	1255.76	1325.37	1866.98	1864.94	-265.14	-276.31	-260.05	62.4731	61.8994	61.5690	61.8652	120.301	45.4593	61.1931	97.0143



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	PFJC PSIA	PFVCD PSIA	PFVC-1 PSIA	PFVC-2 PSIA	TOJ DEG F	TOFM DEG F	TOBL DEG F	TFJ DEG F	TFVI DEG F	TTCJ DEG F	TTCVI DEG F	TRCAD DEG F	TRCFO DEG F	TH20I DEG F	PH20-OUT PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
1.271106	1255.76	1325.37	1868.66	1865.78	-265.14	-276.31	-261.20	62.4731	61.8994	61.5690	61.8652	120.406	45.4593	60.6853	96.0655
1.276226	1255.76	1326.42	1868.66	1865.78	-265.14	-276.31	-261.20	62.4731	61.8994	61.5690	61.8652	120.616	45.4888	60.6994	95.5912
1.281346	1255.76	1326.84	1868.66	1865.99	-265.14	-276.31	-259.85	62.4731	61.8994	61.5690	61.8652	120.721	45.4888	60.7983	95.1168
1.286466	1255.76	1326.84	1868.66	1865.99	-266.70	-276.31	-261.20	62.4731	61.8994	61.5690	61.8652	120.459	45.6947	60.8124	95.1168
1.291586	1255.76	1326.84	1868.66	1865.99	-264.59	-276.57	-261.20	62.4731	61.8994	61.7716	61.8652	120.932	45.6947	60.7983	95.1168
1.296706	1255.76	1326.84	1868.66	1865.78	-266.23	-276.57	-259.85	62.4731	61.8994	61.5690	61.7793	120.932	45.6947	60.6994	95.1168
1.301826	1255.76	1326.84	1868.66	1865.99	-265.68	-276.31	-260.05	62.4731	61.7826	61.7716	61.8079	120.932	45.7242	60.8124	95.5912
1.306946	1255.76	1326.84	1868.66	1865.78	-265.68	-276.57	-261.74	62.4731	61.8994	61.7716	61.7506	121.037	45.6947	60.6994	96.0655
1.312066	1255.76	1326.84	1868.66	1865.78	-265.89	-276.57	-259.58	62.4731	61.8994	61.7716	61.7506	121.142	45.7242	60.6994	96.5399
1.317186	1255.76	1326.84	1868.66	1865.99	-265.68	-276.57	-261.74	62.4731	61.8994	61.8005	61.7793	121.142	45.9301	60.8124	96.5399
1.322306	1255.76	1326.21	1868.66	1865.99	-265.68	-276.57	-261.20	62.4731	61.8994	61.8005	61.7506	121.142	45.7242	60.8124	96.0655
1.338792	1255.76	1325.37	1868.98	1865.36	-268.96	-276.57	-261.74	62.4731	61.7826	61.8005	61.7793	121.037	46.1066	60.8124	95.5912
1.343912	1255.76	1325.37	1868.66	1865.78	-264.66	-276.57	-261.74	62.4731	61.7826	61.8005	61.8079	121.562	46.1066	60.7983	95.1168
1.349032	1255.76	1325.37	1868.66	1865.99	-266.23	-276.57	-261.20	62.4731	61.7826	61.8005	61.6933	121.299	46.1066	60.6994	95.1168
1.354152	1255.76	1325.37	1868.66	1865.78	-265.89	-276.57	-261.74	62.4731	61.7826	61.8005	61.8652	121.457	46.1654	60.6994	94.1088
1.359272	1255.76	1325.37	1868.66	1865.99	-266.23	-276.57	-261.20	62.4731	61.8994	61.9453	61.6933	121.562	45.9595	60.8124	94.1088
1.364392	1255.76	1326.42	1868.66	1865.78	-266.23	-276.57	-260.05	62.4731	61.7826	61.9453	61.7506	121.562	46.1654	60.7983	95.1168
1.369512	1255.76	1326.42	1868.66	1865.78	-266.23	-276.57	-261.20	62.4731	61.7826	62.0031	61.7506	121.667	46.1654	60.8829	95.1168
1.374632	1255.76	1326.42	1868.66	1865.78	-266.30	-276.57	-259.98	62.4731	61.7826	62.0031	61.7506	121.772	46.1654	60.8124	95.1168
1.379752	1255.76	1326.84	1868.66	1865.99	-267.39	-276.57	-259.85	62.4731	61.7826	62.0031	61.7506	121.877	46.1654	60.8124	95.1168
1.384872	1255.76	1326.42	1868.66	1865.99	-266.30	-276.57	-261.20	62.4731	61.7826	62.0320	61.6933	121.982	46.1948	60.9252	95.5912
1.389992	1255.76	1326.84	1868.66	1865.99	-266.57	-276.57	-261.74	62.4731	61.7826	62.0320	61.6933	122.087	46.1654	60.7983	96.0655
1.395112	1255.76	1326.84	1869.50	1865.78	-267.94	-276.57	-259.85	62.4731	61.7826	62.0320	61.6933	122.140	46.1948	61.0380	95.5912
1.411716	1255.76	1326.84	1868.98	1864.94	-265.75	-276.57	-261.20	62.2415	61.7826	62.0320	61.6933	122.402	46.1948	60.8124	95.1168
1.416836	1255.76	1326.84	1868.66	1865.78	-268.96	-276.57	-259.85	62.4731	61.7826	62.0320	61.6933	122.087	46.1948	60.6994	94.0495
1.421956	1255.76	1326.84	1868.66	1865.99	-266.70	-276.57	-261.20	62.2415	61.7826	62.0320	61.6933	122.179	46.1948	60.9252	93.6937
1.427076	1255.76	1326.84	1868.66	1865.78	-267.32	-276.57	-261.20	62.4731	61.7826	62.0320	61.6933	122.140	46.1948	60.8124	93.6937
1.432196	1255.76	1326.84	1868.66	1865.99	-267.87	-276.57	-261.20	62.4731	61.7826	62.0320	61.6933	122.087	46.4006	60.6994	93.6937
1.437316	1255.76	1326.84	1868.66	1865.99	-266.70	-276.57	-261.20	62.4731	61.7826	62.0320	61.6933	122.140	46.4006	60.8124	93.9309
1.442436	1255.76	1326.84	1868.66	1865.78	-267.87	-276.57	-260.66	62.4731	61.7826	62.0320	61.6933	122.179	46.6945	60.9252	94.0495
1.447556	1255.76	1326.84	1868.66	1865.99	-267.87	-276.57	-261.20	62.4731	61.7826	62.0320	61.6933	122.402	46.4299	60.7983	95.1168
1.452676	1255.76	1326.84	1868.66	1865.78	-267.87	-276.57	-261.20	62.4731	61.7826	62.2345	61.6933	122.402	46.5182	60.8124	95.1168
1.457796	1255.76	1326.84	1868.66	1865.78	-267.87	-276.57	-261.20	62.4731	61.7826	62.2345	61.6933	122.507	46.6945	60.9111	95.1168
1.462916	1255.76	1326.84	1868.66	1865.78	-268.96	-276.57	-259.85	62.4731	61.7826	62.2345	61.6933	122.507	46.6945	60.9111	95.1168
1.468036	1255.76	1326.84	1868.66	1865.78	-268.96	-276.57	-259.85	62.4731	61.7826	62.2634	61.6933	122.612	46.6945	60.5865	95.1168
1.484191	1255.76	1326.84	1868.66	1865.78	-268.96	-276.57	-261.20	62.4731	61.7826	62.2634	61.6933	120.721	46.6945	60.6994	94.1088
1.489311	1255.76	1326.84	1868.66	1865.78	-267.94	-276.57	-261.20	62.2415	61.7826	62.2634	61.6933	123.346	46.6945	60.7983	94.1088
1.494431	1255.76	1326.84	1868.66	1865.78	-268.41	-276.57	-261.20	62.2415	61.5489	62.2634	61.6933	122.612	46.6945	60.6994	94.0495
1.499551	1255.76	1326.84	1868.66	1865.99	-268.41	-276.57	-261.20	62.4731	61.7826	62.5237	61.6933	122.822	46.6945	60.7983	94.0495
1.504671	1255.76	1327.05	1868.66	1865.99	-268.41	-276.83	-261.74	62.2415	61.5489	62.5237	61.6933	122.822	46.6945	60.8124	94.1088
1.509791	1255.76	1326.84	1868.66	1865.78	-267.87	-276.57	-260.05	62.2415	61.5489	62.5237	61.6933	122.926	46.6945	60.8124	94.1088
1.514911	1255.76	1326.84	1868.66	1865.99	-268.48	-276.57	-261.20	62.4731	61.7826	62.5237	61.6933	122.926	46.7533	60.6994	94.1088
1.520031	1255.76	1326.84	1868.66	1865.99	-268.41	-276.83	-261.20	62.2415	61.7826	62.5237	61.4354	122.926	46.7533	60.7983	94.0495
1.525151	1255.76	1326.84	1868.66	1865.78	-268.41	-276.57	-261.20	62.2415	61.5489	62.5237	61.4354	122.979	46.6945	60.8124	94.0495
1.530271	1255.76	1326.84	1868.66	1865.99	-269.03	-276.57	-259.58	62.4731	61.7826	62.5237	61.4066	122.979	46.7533	60.8688	93.9309
1.535391	1255.76	1326.84	1868.66	1865.99	-269.03	-276.57	-259.85	62.4731	61.7826	62.5237	61.4354	123.005	46.8120	61.1649	94.1088
1.540511	1255.76	1326.84	1868.66	1865.78	-268.41	-276.57	-261.20	62.2415	61.5489	62.5237	61.4066	123.018	46.7533	60.5865	95.1168
1.556647	1255.76	1327.05	1868.98	1865.36	-267.87	-276.57	-259.98	62.2415	61.7826	62.5237	61.2059	123.241	46.8708	60.9111	95.5912
1.561767	1255.76	1326.84	1868.66	1865.78	-268.96	-276.83	-261.20	62.2415	61.5489	62.5237	61.2059	123.241	46.7533	60.9111	96.0655

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER 1/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	PFJC PSIA	PFVCD PSIA	PFVC-1 PSIA	PFVC-2 PSIA	TOJ DEG F	TOFM DEG F	TOBL DEG F	TFJ DEG F	TFVI DEG F	TTCJ DEG F	TTCVI DEG F	TRCAO DEG F	TRCFO DEG F	TH2OI DEG F	PH2O-OUT PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
1.566887	1255.76	1327.05	1868.66	1865.99	-269.51	-276.83	-259.85	62.4731	61.7826	62.5237	61.2059	123.241	46.8708	60.6994	96.0655
1.572007	1255.76	1327.05	1868.66	1865.99	-268.96	-276.83	-261.20	62.2415	61.7826	62.5237	61.2059	123.346	46.9001	60.7983	95.5912
1.577127	1257.03	1327.05	1869.50	1865.78	-268.96	-277.09	-261.20	62.2415	61.7826	62.5815	61.2059	123.451	46.9001	60.9111	95.5912
1.582247	1257.03	1327.05	1868.66	1865.99	-270.06	-276.83	-259.58	62.2415	61.5489	62.5237	61.2059	123.451	46.8708	60.8124	95.5912
1.587367	1257.03	1327.05	1868.66	1865.99	-268.96	-277.09	-261.20	62.2415	61.7826	62.5815	61.2059	123.555	46.9001	60.7983	95.5912
1.592487	1257.03	1327.05	1868.66	1865.99	-268.96	-276.83	-260.66	62.2415	61.5489	62.5815	61.2059	123.660	46.9001	60.8124	95.5912
1.597607	1257.03	1327.05	1868.66	1865.99	-270.06	-276.83	-259.85	62.2415	61.7826	62.5815	61.2059	123.660	46.9001	60.7983	95.5912
1.602727	1257.03	1327.05	1868.66	1865.78	-269.03	-277.09	-261.20	62.2415	61.7826	62.6394	61.2059	123.660	46.9883	60.8124	95.5912
1.607847	1257.03	1327.05	1868.66	1865.99	-268.96	-277.09	-261.20	62.2415	61.5489	62.6105	61.2059	123.765	46.9001	60.3466	96.0655
1.612967	1257.03	1327.05	1868.66	1865.78	-270.06	-276.83	-259.85	62.2415	61.5489	62.6394	61.2059	123.765	46.9001	61.1649	95.5912
1.629484	1257.03	1327.05	1868.66	1865.78	-268.96	-276.83	-261.20	62.2415	61.5489	62.6971	61.2059	123.765	46.9001	60.9111	95.1168
1.634604	1257.03	1327.05	1868.66	1865.78	-270.06	-276.83	-259.85	62.2415	61.5489	62.6971	61.2059	123.765	46.9883	60.8547	95.1168
1.639724	1255.76	1327.05	1868.66	1865.99	-268.96	-276.83	-261.20	62.2415	61.5489	62.6971	61.2059	123.765	46.9001	61.7147	95.1168
1.644844	1255.76	1327.05	1868.66	1865.99	-268.96	-276.83	-261.20	62.2415	61.5489	62.6971	61.2059	123.765	47.0471	60.9252	95.1168
1.649964	1255.76	1327.05	1868.66	1865.99	-268.96	-277.09	-261.20	62.2415	61.5489	62.6971	61.2059	123.660	47.0471	60.3607	95.1168
1.655084	1255.76	1327.05	1868.66	1865.99	-268.96	-277.09	-261.20	62.2415	61.5489	62.7261	61.2059	123.660	47.1058	61.1649	94.1088
1.660204	1255.76	1327.05	1868.66	1865.99	-269.58	-277.09	-259.85	62.2415	61.5489	62.7261	61.2059	123.765	47.1351	60.8124	93.9309
1.665324	1257.03	1328.53	1868.66	1865.78	-267.32	-277.09	-259.98	62.2415	61.5489	62.7261	61.2059	123.817	47.1351	60.6994	94.0495
1.670444	1257.03	1327.05	1868.66	1865.99	-270.06	-277.09	-261.20	62.2415	61.5489	62.7261	61.2059	121.982	47.1351	60.8124	94.1088
1.675564	1257.03	1328.53	1868.66	1865.99	-268.96	-277.09	-261.20	62.2415	61.5489	62.7261	61.2059	124.498	47.1058	60.7700	95.1168
1.680684	1257.03	1328.53	1868.66	1865.99	-269.51	-277.09	-259.91	62.1257	61.5489	62.6971	61.2059	123.660	47.1351	60.8124	95.1168
1.685804	1257.03	1328.53	1868.66	1865.99	-270.06	-277.09	-259.85	62.1257	61.5489	62.7261	61.2059	123.817	47.1351	60.7983	95.5912
1.702747	1255.76	1327.90	1868.66	1865.78	-270.06	-277.09	-259.98	62.1257	61.5489	62.7261	61.1773	123.857	47.1351	60.8124	96.0655
1.707867	1257.03	1328.53	1868.66	1865.99	-269.17	-277.09	-261.20	62.1257	61.5489	62.8707	61.2059	123.857	47.1351	60.8124	97.0143
1.712987	1257.03	1328.53	1868.66	1865.99	-273.92	-277.09	-261.20	62.1257	61.5489	62.8128	61.2059	123.451	47.1351	60.8124	97.0143
1.718107	1257.03	1328.53	1869.50	1865.99	-267.87	-277.09	-261.74	62.1257	61.3154	62.7261	61.2059	124.079	47.1351	60.8124	97.0143
1.723227	1257.03	1328.53	1868.66	1865.99	-270.06	-277.09	-261.20	62.1257	61.5489	62.8707	61.1773	124.079	47.1351	60.6994	96.5399
1.728347	1257.03	1328.53	1868.66	1865.99	-269.51	-277.09	-261.74	62.0099	61.5489	62.9573	61.2059	124.079	47.1351	60.7983	96.0655
1.733467	1257.03	1328.53	1868.66	1865.99	-270.13	-277.09	-259.85	62.0099	61.3154	62.9573	61.2059	124.184	47.1351	60.8124	96.0655
1.738587	1257.03	1328.53	1868.66	1865.99	-270.06	-277.09	-261.20	62.0099	61.5489	62.9573	61.2059	124.079	47.3408	60.6994	96.0655
1.743707	1257.03	1328.53	1868.66	1865.99	-270.06	-277.09	-261.20	62.0099	61.5489	62.9573	61.2059	124.079	47.3408	60.7983	96.5399
1.748827	1257.03	1327.05	1868.66	1865.99	-270.06	-277.09	-261.20	62.0099	61.3154	62.9573	61.1773	124.184	47.1351	60.8124	96.0655
1.753947	1257.03	1328.53	1869.50	1865.99	-270.06	-277.09	-261.20	62.0099	61.3154	62.9573	61.2059	124.184	47.1351	60.7983	95.5912
1.759067	1257.03	1328.53	1868.66	1865.99	-270.06	-277.09	-261.20	62.0099	61.3154	62.9573	61.1773	124.184	47.1351	60.7983	96.0655
1.789557	1257.03	1328.53	1868.66	1865.99	-270.06	-277.09	-261.20	62.0099	61.3154	62.9573	61.1773	124.184	47.3408	60.0078	95.5912
1.810456	1257.03	1328.53	1869.50	1865.99	-270.06	-277.36	-260.66	62.0099	61.5489	63.1595	61.4066	124.289	47.3701	60.8124	94.0495
1.828239	1257.03	1328.53	1868.66	1865.99	-270.06	-277.36	-260.05	62.0099	61.7826	63.1595	61.8652	124.498	47.5756	60.7983	94.1088
1.846342	1257.03	1328.53	1868.66	1865.99	-270.40	-277.36	-259.58	62.4731	62.2496	63.1884	62.0944	124.498	47.3701	60.8124	95.1168
1.864088	1257.03	1328.74	1869.50	1865.99	-270.06	-277.09	-260.05	62.7045	61.9577	63.3907	62.0944	124.498	47.5756	60.5865	94.1088
1.882182	1257.03	1328.74	1868.66	1867.05	-270.61	-277.36	-259.04	62.7045	61.7826	63.3907	61.7506	124.498	47.6050	60.6994	95.1168
1.900846	1257.03	1328.74	1868.66	1865.99	-270.95	-277.36	-259.04	62.7045	61.7826	63.3907	61.4354	124.498	47.6050	60.5865	97.0143
1.918601	1257.03	1328.74	1868.66	1865.99	-270.61	-277.36	-259.58	62.7045	61.5489	63.4195	61.2059	124.498	47.6050	60.2620	97.0143
1.936729	1257.03	1328.74	1869.50	1865.99	-270.68	-277.36	-259.04	62.2415	61.5489	63.3907	61.2059	124.655	47.6050	60.9252	96.5399
1.954481	1257.03	1328.74	1868.66	1865.99	-270.68	-277.36	-259.58	62.2415	61.5489	63.4195	61.1773	124.655	47.6050	60.4736	95.1168
1.972577	1257.03	1328.74	1868.66	1865.99	-270.13	-277.62	-260.05	62.2415	61.3154	63.4195	60.9765	124.681	47.6050	60.7983	95.1168
1.991189	1257.03	1328.74	1868.66	1865.99	-270.81	-277.36	-259.58	62.0099	61.3154	63.6218	60.9765	124.681	47.7516	60.0078	95.5912
2.016634	1257.03	1328.74	1869.50	1865.99	-270.61	-277.36	-259.91	62.0099	61.0816	63.6218	60.7470	124.681	47.8397	60.9111	97.0143
2.037007	1257.03	1328.74	1868.66	1865.99	-270.61	-277.62	-260.05	62.0099	60.8478	63.6505	60.7470	124.694	47.8104	61.1931	96.0655
2.054782	1257.03	1328.74	1868.66	1865.99	-275.49	-277.62	-259.58	61.7783	60.6139	63.6218	60.7183	124.498	47.8397	60.6853	97.0143

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PFJC	PFVCD	PFVC-1	PFVC-2	TOJ	TOFM	TOBL	TFJ	TFVI	TTCJ	TTCVI	TRCAO	TRCFO	TH2OI	PH20-OUT
PARAMETER	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
2.072884	1257.03	1328.74	1869.50	1865.99	-270.95	-277.62	-259.85	61.7783	60.6139	63.6218	60.6609	125.021	47.8397	61.4893	96.5399
2.091116	1257.66	1328.53	1868.66	1865.99	-271.09	-277.62	-259.85	61.7783	60.6139	63.6505	60.5175	125.126	47.9278	60.6853	97.0143
2.109302	1257.03	1329.79	1868.66	1867.47	-270.61	-277.62	-259.85	61.7783	60.6139	63.6505	60.2878	125.440	47.9865	60.6853	95.5912
2.127443	1257.66	1328.53	1868.66	1865.99	-273.36	-277.62	-259.58	61.7783	60.6139	63.6505	60.2878	125.753	48.0451	60.6994	95.1168
2.145171	1257.66	1328.74	1868.66	1865.99	-269.03	-277.62	-259.58	61.7783	60.6139	63.7949	60.2878	125.753	48.0451	60.7983	94.1088
2.163297	1257.66	1328.53	1868.66	1865.99	-271.09	-277.62	-259.58	61.2858	60.6139	63.8527	60.2878	125.335	48.0451	60.5865	93.6937
2.181475	1257.66	1328.53	1869.50	1865.99	-271.09	-277.62	-259.04	61.2567	60.6139	63.8527	60.2878	125.335	48.0451	61.2637	95.5912
2.199663	1257.66	1328.74	1868.66	1867.47	-271.78	-277.62	-258.50	61.2567	60.6139	63.8527	60.2878	125.335	48.0451	60.6994	96.0655
2.217800	1257.66	1328.74	1869.50	1865.99	-272.26	-277.62	-259.04	61.2567	60.6139	63.8527	60.2878	125.335	48.0451	60.7983	94.1088
2.243644	1257.66	1328.74	1868.66	1867.47	-271.09	-277.62	-259.04	61.1987	60.6139	63.8815	60.2878	125.335	48.0451	60.7983	93.6937
2.264253	1257.66	1328.74	1868.66	1865.99	-270.95	-277.62	-258.50	61.1987	60.6139	63.8815	60.2878	125.335	48.0745	60.8124	94.1088
2.282308	1257.66	1328.74	1869.50	1865.99	-271.09	-277.88	-257.96	61.1987	60.6139	63.8815	60.2878	125.335	48.0745	60.6853	95.1168
2.300947	1257.66	1328.74	1868.66	1867.47	-271.09	-278.17	-259.04	61.1987	60.6139	63.8815	60.2592	125.335	48.0745	60.4736	95.1168
2.318690	1257.82	1330.43	1868.66	1867.47	-270.88	-278.17	-259.24	61.1987	60.1167	63.8815	60.2878	125.335	48.5729	61.3765	96.0655
2.336430	1257.66	1329.79	1869.50	1865.99	-271.09	-278.17	-259.04	61.1987	60.1167	63.8815	60.2878	125.440	48.5729	60.5865	97.0143
2.354552	1257.66	1330.22	1868.66	1865.99	-272.26	-278.17	-258.50	61.1987	60.1167	63.8815	60.2592	125.440	48.5729	60.6994	97.0143
2.372680	1257.82	1330.43	1868.66	1865.99	-271.09	-278.27	-257.96	61.0829	60.0875	64.3720	60.2878	125.492	48.0745	60.9111	93.9309
2.391274	1257.82	1330.43	1868.66	1865.99	-272.26	-278.24	-257.42	61.1987	60.0875	64.0836	60.2017	125.440	48.0745	60.6994	94.1088
2.409492	1257.66	1329.58	1869.50	1865.99	-271.09	-278.40	-256.88	61.1987	60.3799	64.3720	60.0581	125.440	48.5729	60.7983	95.1168
2.427241	1257.66	1328.74	1869.50	1865.99	-271.09	-278.40	-260.05	61.0829	60.3799	64.3720	60.0581	125.440	48.5729	60.9111	96.0655
2.444978	1257.97	1330.22	1868.66	1867.47	-271.09	-278.27	-262.28	61.0829	60.0289	64.3720	60.0581	125.440	48.5729	60.5865	96.0655
2.471239	1257.82	1330.43	1869.50	1865.99	-272.26	-278.27	-262.28	61.0829	60.0289	64.3720	60.0581	125.440	48.5729	60.6994	96.0655
2.493319	1257.82	1330.43	1869.50	1865.99	-272.26	-278.40	-263.37	61.0829	60.0289	64.3720	60.0294	126.276	48.5729	60.6994	96.0655
2.511508	1257.66	1330.22	1869.50	1865.99	-271.09	-278.27	-263.37	61.0829	59.9119	64.3720	59.9432	126.341	48.5729	60.7983	95.1168
2.529731	1258.13	1330.43	1869.50	1865.99	-272.26	-278.27	-263.37	61.0829	59.9119	64.3720	59.9432	125.518	48.5729	60.7983	93.9309
2.547862	1257.97	1330.43	1869.92	1867.68	-272.26	-278.40	-263.37	61.0829	59.9119	64.3720	59.9432	125.531	48.5729	60.9252	95.1168
2.565606	1258.13	1330.43	1869.50	1867.47	-272.88	-278.40	-263.37	61.0829	59.9119	64.3720	59.9145	125.518	48.5729	60.7559	95.1168
2.583722	1258.13	1330.43	1868.66	1867.47	-272.81	-278.40	-263.37	61.0829	59.9119	64.3720	59.9145	125.531	48.5729	60.6994	94.1088
2.601878	1258.13	1330.43	1868.66	1867.47	-272.47	-278.40	-263.37	61.0829	59.9119	64.3720	59.8571	125.753	48.5729	60.5865	94.1088
2.620552	1258.13	1330.43	1868.66	1867.47	-272.26	-278.40	-263.44	61.0829	59.9119	64.4297	60.0294	125.753	48.5729	60.6994	96.0655
2.638289	1258.13	1330.43	1868.66	1867.47	-272.26	-278.40	-263.92	61.0829	59.9119	64.4297	59.8571	125.753	48.5729	60.6994	96.0655
2.656390	1258.13	1330.43	1868.66	1867.47	-272.33	-278.40	-263.92	61.0829	59.9119	64.4874	59.8571	125.753	48.5729	60.5865	94.0495
2.674519	1258.13	1330.43	1868.66	1867.47	-272.33	-278.40	-263.37	61.0829	59.9119	64.4874	59.8571	125.753	48.5729	60.6853	95.1168
2.699949	1259.55	1330.43	1869.50	1867.47	-272.26	-278.40	-263.92	60.8510	59.6778	64.4297	59.8571	126.589	48.5729	60.6994	95.1168
2.721326	1260.82	1330.43	1868.66	1867.47	-272.33	-278.40	-264.26	60.8510	59.6778	64.4297	59.8571	125.858	48.5729	60.8124	94.1088
2.739517	1260.82	1330.43	1869.50	1867.47	-272.81	-278.67	-264.19	60.8510	59.6778	64.4297	59.8571	125.858	48.5729	60.7983	96.0655
2.757657	1260.82	1330.43	1869.50	1867.47	-273.43	-278.40	-265.55	60.8510	59.6778	64.4297	59.8571	125.858	48.6317	60.7983	96.0655
2.775405	1260.82	1330.43	1869.92	1867.68	-273.92	-278.67	-263.92	60.8510	59.6778	64.4297	59.8571	125.858	48.6317	60.7983	95.1168
2.793530	1260.82	1330.43	1869.50	1867.05	-272.26	-278.40	-264.39	60.8510	59.6778	64.4297	59.8571	125.858	48.6902	60.8124	94.0495
2.811720	1260.82	1330.43	1869.92	1867.68	-272.33	-278.67	-265.55	60.8510	59.6778	64.5452	59.3685	125.858	48.7488	60.8124	93.9309
2.830449	1260.82	1330.43	1868.66	1867.47	-271.09	-278.67	-265.55	60.8510	59.6778	64.5452	59.3685	125.963	48.7488	60.6994	93.7530
2.848178	1260.82	1330.43	1869.50	1867.05	-272.81	-278.67	-265.55	60.8510	59.6778	64.5452	59.3685	125.753	48.7488	60.7559	95.1168
2.866318	1260.82	1330.43	1869.50	1867.47	-272.81	-278.40	-265.55	60.8510	59.6778	64.5452	59.3685	125.858	48.7488	60.6994	95.1168
2.884062	1260.82	1330.43	1869.50	1865.99	-272.81	-278.67	-265.55	60.8510	59.6778	64.5452	59.3685	125.753	48.7488	60.6994	97.0143
2.902188	1260.82	1330.43	1869.50	1865.99	-272.26	-278.67	-265.62	60.8510	59.6778	64.4874	59.3398	125.753	48.7488	60.6994	96.0655
2.927787	1260.82	1330.43	1869.50	1865.99	-272.33	-278.67	-266.64	60.6190	59.6778	64.4874	59.3685	125.753	48.7488	60.6994	96.0655
2.947765	1260.82	1330.43	1869.50	1867.05	-273.36	-278.67	-265.55	60.6190	59.6778	64.4874	59.3398	125.753	48.7488	60.6994	95.1168
2.965888	1260.82	1330.43	1869.50	1867.47	-272.81	-278.67	-264.39	60.6190	59.6778	64.5452	59.3398	125.858	48.7488	60.6994	95.5912
2.983631	1260.82	1330.43	1869.50	1865.99	-272.88	-278.67	-265.55	60.6190	59.4435	64.5452	59.3398	125.963	48.7488	60.6853	97.0143



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	PFJC PSIA	PFVCD PSIA	PFVC-1 PSIA	PFVC-2 PSIA	TOJ DEG F	TOFM DEG F	TOBL DEG F	TFJ DEG F	TFVI DEG F	TTCJ DEG F	TTCVI DEG F	TRCAO DEG F	TRCFO DEG F	TH20I DEG F	PH20-OUT PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
3.001785	1260.82	1330.43	1868.66	1867.47	-272.33	-278.67	-266.64	60.6190	59.2093	64.5452	59.1387	125.963	48.6902	60.4595	96.5399
3.020426	1260.82	1330.43	1869.71	1867.68	-272.81	-278.93	-266.64	60.3870	59.4435	64.5740	59.3398	125.963	48.7782	60.7983	96.0655
3.038161	1260.82	1330.43	1869.50	1865.99	-272.81	-278.67	-266.64	60.3870	59.2093	64.5740	59.2823	126.067	48.7488	60.7983	96.0655
3.056269	1260.82	1334.01	1869.50	1867.47	-272.81	-278.67	-266.64	60.3870	59.2093	64.5740	59.2248	126.589	48.6902	60.8124	96.5399
3.074418	1260.82	1334.01	1869.50	1867.47	-273.36	-278.67	-266.64	60.3870	59.2093	64.5740	59.1387	125.858	48.6317	60.6994	96.0655
3.092147	1260.82	1334.01	1869.92	1867.68	-273.36	-278.67	-267.74	60.3870	59.2093	64.5740	59.1099	125.858	48.7488	60.6994	93.9309
3.110785	1260.82	1334.01	1870.13	1867.68	-272.33	-278.67	-266.71	60.3870	59.2093	64.5452	58.9948	126.067	48.7488	60.8124	93.6937
3.128542	1260.82	1334.01	1869.92	1867.68	-272.81	-278.67	-267.19	60.3870	59.2093	64.5740	59.1099	124.917	48.7488	60.8124	93.6937
3.156510	1260.82	1330.43	1868.66	1867.47	-272.88	-278.93	-266.64	60.1547	59.2093	64.5452	58.9086	125.963	48.7488	60.6853	97.0143
3.175442	1260.82	1330.43	1869.50	1867.47	-273.98	-279.19	-267.19	60.1547	59.2093	64.5452	58.9086	125.963	48.7488	60.5865	97.0143
3.193586	1260.82	1334.01	1870.13	1867.68	-272.81	-278.93	-267.74	60.1547	58.9749	64.5452	58.9086	126.067	48.7782	60.9111	96.0655
3.211780	1260.82	1334.01	1869.50	1867.47	-273.36	-279.19	-267.74	60.1547	58.9749	64.5452	58.8798	126.067	48.7782	60.2902	95.5912
3.230468	1260.82	1334.01	1869.50	1867.47	-273.36	-279.19	-267.74	60.1547	58.9749	64.5452	58.8798	126.067	48.7782	60.8124	95.1168
3.248198	1260.82	1334.01	1869.50	1867.47	-274.47	-278.93	-267.74	60.1547	58.9749	64.5452	58.6785	125.753	48.9247	60.6994	95.1168
3.266318	1260.82	1334.01	1869.50	1867.47	-272.88	-278.67	-267.74	60.1547	58.9749	64.5452	58.6785	125.963	48.9247	60.6994	96.0655
3.284462	1260.82	1334.01	1869.50	1865.99	-273.43	-278.93	-268.29	60.1547	58.7404	64.4874	58.6785	125.963	48.7782	60.6853	94.1088
3.302193	1260.82	1334.01	1869.50	1867.05	-272.81	-279.19	-268.29	60.1547	58.9749	64.4874	58.6785	126.172	48.9833	60.8124	95.1168
3.320845	1260.82	1334.01	1869.92	1867.68	-272.81	-278.93	-267.81	60.1547	58.7404	64.4874	58.6785	126.172	48.9833	61.1649	96.0655
3.338579	1260.82	1334.01	1869.50	1867.47	-272.81	-279.19	-267.81	59.9225	58.7404	64.5452	58.6498	125.963	48.9833	60.9111	96.0655
3.356706	1260.82	1334.01	1869.92	1867.68	-272.81	-279.19	-268.29	59.9225	58.7404	64.5740	58.4483	126.067	48.9247	61.2072	96.0655
3.382152	1260.82	1334.01	1870.13	1867.68	-273.36	-279.19	-268.29	59.9225	58.7404	64.5452	58.4483	126.067	48.9833	60.8124	95.5912
3.403526	1260.82	1334.01	1870.13	1867.68	-273.36	-279.19	-268.29	59.9225	58.7404	64.5452	58.4483	126.172	48.9247	60.9252	93.9309
3.421739	1260.82	1334.01	1870.13	1867.68	-272.26	-279.19	-268.84	59.9225	58.7404	64.5452	58.4483	126.172	48.9833	60.7983	95.1168
3.439947	1260.82	1334.01	1869.50	1867.47	-272.81	-279.19	-268.36	59.9225	58.7404	64.5740	58.4483	126.172	48.9833	60.8124	95.5912
3.457685	1260.82	1334.01	1869.50	1867.47	-272.88	-279.19	-268.29	59.9225	58.7404	64.5740	58.4483	126.172	48.9833	60.8124	95.1168
3.475795	1262.08	1334.01	1869.50	1867.47	-273.98	-279.19	-268.84	59.9225	58.7404	64.5452	58.4194	126.172	48.9833	60.8124	94.0495
3.493927	1262.08	1334.01	1870.13	1867.68	-273.36	-279.19	-268.84	59.4290	58.2421	64.5452	58.3620	126.172	48.9833	60.9252	94.1088
3.512101	1262.08	1334.01	1869.50	1867.47	-273.36	-279.19	-269.39	59.3999	58.2421	64.5740	58.2181	126.172	49.0126	60.9252	95.1168
3.530814	1260.82	1334.01	1870.13	1867.68	-275.49	-279.19	-268.56	59.3999	58.2128	64.5452	58.2181	125.858	48.9833	60.9111	95.1168
3.548549	1262.08	1334.01	1870.13	1867.68	-273.36	-279.45	-268.29	59.3417	58.2128	64.4586	58.2181	126.172	49.0126	60.9111	96.0655
3.566692	1262.08	1334.01	1870.13	1869.16	-273.36	-279.45	-268.29	59.3417	58.2128	64.4874	58.2181	126.172	48.9833	60.6994	95.1168
3.584847	1262.08	1334.01	1870.13	1867.68	-273.36	-279.19	-268.56	59.3417	58.1541	64.4297	58.1893	126.172	48.9833	60.8124	95.1168
3.610723	1262.08	1334.01	1869.50	1867.47	-273.36	-279.45	-268.56	59.3417	58.1541	64.4874	58.1893	126.172	48.9833	60.9111	95.1168
3.631319	1260.82	1334.01	1870.13	1867.68	-273.36	-279.45	-268.84	59.2256	58.1541	64.5740	58.1893	126.276	48.9833	60.8124	97.0143
3.649894	1262.08	1334.01	1869.50	1867.68	-273.43	-279.45	-268.84	59.2256	58.0368	64.5452	58.0166	126.276	49.2177	60.7983	96.5399
3.667634	1262.08	1334.01	1872.03	1868.74	-274.47	-279.19	-269.39	59.2256	58.0368	64.5452	58.0742	126.172	49.0126	60.7983	96.0655
3.685779	1262.08	1334.01	1870.13	1867.68	-273.43	-279.45	-268.84	59.2256	58.0368	64.5452	58.0742	126.172	49.0126	60.9111	95.5912
3.703510	1262.08	1334.01	1870.13	1867.68	-273.36	-279.45	-268.56	59.2256	58.0368	64.5740	58.0166	126.276	49.2177	60.8124	95.1168
3.722141	1262.08	1334.01	1870.13	1867.68	-273.36	-279.45	-268.29	59.2256	58.0368	64.5740	58.0166	126.328	49.2469	60.9252	95.1168
3.740813	1262.08	1334.01	1869.50	1867.47	-273.43	-279.45	-267.74	59.2256	58.0368	64.5740	58.0166	126.276	49.2177	60.7983	93.9902
3.758559	1262.08	1334.01	1870.13	1867.68	-274.47	-279.71	-267.74	59.2256	58.0368	64.5452	58.0166	126.276	49.0126	60.6994	93.6937
3.776683	1262.08	1334.43	1870.13	1867.68	-273.43	-279.45	-267.19	59.2256	58.0368	64.5452	58.0166	126.276	49.0126	60.6994	94.0495
3.794440	1262.08	1334.01	1870.13	1867.68	-273.71	-279.71	-265.55	59.2256	57.8021	64.5452	58.0166	126.328	49.0126	60.9252	95.5912
3.812557	1262.08	1334.43	1870.13	1869.16	-273.36	-279.45	-265.55	59.2256	57.8021	64.5452	58.0166	126.328	49.0126	60.9252	95.5912
3.838017	1262.08	1334.43	1870.13	1867.68	-273.43	-279.45	-263.37	58.9932	57.8021	64.4297	58.0166	126.276	49.0126	60.6994	95.5912
3.859489	1262.08	1334.01	1870.13	1869.16	-272.81	-279.71	-266.10	58.9932	57.8021	64.4297	58.0166	126.903	49.0126	60.6994	94.1088
3.877229	1262.08	1334.01	1870.13	1869.16	-272.26	-279.71	-268.29	58.9932	57.8021	64.4297	58.0166	126.368	49.0126	60.8124	95.1168
3.895369	1262.08	1334.43	1870.13	1868.74	-273.36	-279.45	-271.04	58.9932	57.8021	64.4297	58.0166	126.172	49.2177	60.8124	95.1168
3.913109	1262.08	1334.43	1870.13	1869.16	-273.92	-279.71	-271.04	58.9932	57.8021	64.4297	57.5270	126.172	49.2177	60.9252	93.9309

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EQUIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	PFJC PSIA	PFVCD PSIA	PFVC-1 PSIA	PFVC-2 PSIA	TOJ DEG F	TOFM DEG F	TOBL DEG F	TFJ DEG F	TFVI DEG F	TTCJ DEG F	TTCVI DEG F	TRCAO DEG F	TRCFO DEG F	TH20I DEG F	PH20-OUT PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
3.931703	1262.08	1334.43	1870.13	1869.16	-273.43	-279.71	-271.04	58.9932	57.8021	64.3720	57.5270	126.172	49.2177	60.8124	94.1088
3.949917	1262.08	1334.43	1870.13	1867.68	-273.43	-279.45	-272.14	58.9932	57.8021	64.3720	57.5270	126.172	49.0126	60.8124	93.9309
3.967657	1262.08	1334.43	1870.13	1869.16	-273.43	-279.71	-272.14	58.9932	57.8021	64.3720	57.4982	126.276	49.0126	60.6994	93.9309
3.985790	1262.08	1334.43	1870.13	1869.16	-273.43	-279.71	-271.59	58.9932	57.5673	64.3720	57.5270	126.276	49.0126	60.8124	93.9309
4.003538	1263.34	1334.43	1870.13	1868.53	-273.36	-279.71	-272.14	58.9932	57.5673	64.3720	57.2964	126.276	49.0126	60.8124	93.9309
4.022106	1263.34	1334.43	1870.13	1869.16	-273.36	-279.71	-271.04	58.7606	57.5673	64.3720	57.2964	126.276	49.0126	60.8124	96.0655
4.040752	1262.08	1335.28	1870.13	1867.68	-273.92	-279.71	-271.04	58.7606	57.3325	64.3720	57.2964	126.276	49.2469	60.6853	95.5912
4.066213	1263.34	1334.43	1870.13	1867.68	-273.92	-279.71	-272.14	58.7606	57.3325	64.3720	57.2677	126.276	49.2177	60.6853	93.9309
4.086657	1263.34	1334.01	1872.03	1869.16	-273.98	-279.71	-272.14	58.7606	57.3325	64.3720	57.2964	126.276	49.2469	60.6994	95.1168
4.104411	1263.34	1334.01	1873.71	1869.16	-273.36	-279.71	-272.21	58.5281	57.3325	64.3720	57.2677	126.328	49.2469	60.8124	95.1168
4.122515	1263.34	1334.01	1869.92	1868.74	-273.43	-279.71	-272.69	58.5281	57.3325	64.3720	57.0660	126.276	49.2469	60.8124	95.1168
4.141141	1263.34	1334.43	1869.50	1867.68	-273.92	-279.71	-272.14	58.5281	57.3325	64.3720	57.0660	126.276	49.2177	61.3765	92.193
4.159371	1263.34	1334.43	1873.71	1869.16	-273.71	-279.71	-272.69	58.5281	57.3325	64.3720	57.0370	126.172	49.2469	60.8124	96.0655
4.177115	1263.34	1334.43	1869.92	1868.74	-273.36	-279.71	-272.76	58.5281	57.0977	64.3720	57.0370	126.328	49.0126	60.8124	97.0143
4.195247	1263.34	1335.28	1870.13	1869.16	-273.43	-279.71	-272.97	58.2953	57.0977	64.3720	56.9506	126.276	49.0126	60.7983	96.0655
4.212989	1263.34	1334.85	1869.92	1869.16	-273.36	-279.71	-272.76	58.2953	57.0977	64.3720	57.0660	126.328	49.2177	60.9111	95.1168
4.231559	1263.34	1334.43	1870.13	1868.74	-279.51	-279.71	-272.97	58.2953	57.0977	64.3720	57.0370	125.858	49.2177	60.8124	93.7530
4.249756	1263.34	1334.43	1870.13	1869.16	-278.37	-279.71	-272.97	58.2953	57.0977	64.3720	57.0370	125.963	49.2177	60.6853	93.6937
4.267490	1263.34	1334.43	1870.13	1869.16	-274.47	-279.71	-273.79	58.2953	57.0977	64.0836	56.9794	126.368	49.2177	60.6994	93.6937
4.293745	1263.34	1334.85	1870.13	1869.16	-275.49	-279.97	-273.79	58.2953	56.8627	64.0836	56.8353	124.289	49.2469	60.9252	94.0495
4.313249	1263.34	1334.64	1869.92	1869.16	-273.43	-279.71	-273.79	58.0626	56.8627	64.3720	56.8353	126.328	49.2469	60.3607	95.1168
4.331436	1263.34	1334.64	1869.92	1869.16	-273.43	-279.71	-273.79	58.0626	56.8627	64.3720	56.8353	126.328	49.3934	60.3607	96.0655
4.349629	1263.34	1334.43	1869.92	1869.16	-274.47	-279.71	-272.97	58.0626	56.8627	64.3720	56.8353	126.276	49.3934	61.1649	96.0655
4.367772	1263.34	1334.43	1869.92	1868.74	-273.92	-279.71	-274.35	58.2953	56.8627	63.8815	56.6046	126.276	49.4520	60.4736	95.1168
4.385513	1263.34	1334.43	1872.03	1869.16	-273.43	-279.71	-274.35	58.0626	56.8627	63.8815	56.6046	126.328	49.3934	60.9252	93.9309
4.403658	1263.34	1334.64	1870.13	1869.16	-272.81	-279.71	-274.35	58.0626	56.8627	64.3720	56.6046	126.589	49.4520	60.9111	95.1168
4.421816	1263.34	1335.28	1870.13	1869.16	-273.43	-280.27	-274.35	58.0626	56.3630	63.8815	56.6046	126.589	49.2469	60.8829	95.5912
4.440488	1263.34	1334.85	1869.50	1867.68	-273.92	-280.27	-274.35	58.0626	56.8627	63.8815	56.6046	126.589	49.4520	60.8124	95.1168
4.458213	1263.34	1334.64	1870.13	1869.16	-274.47	-280.24	-273.10	58.0626	56.3337	63.8815	56.6046	126.589	49.2469	60.8124	95.1168
4.476350	1263.34	1334.85	1873.71	1869.16	-274.68	-279.97	-274.35	58.0626	56.3337	63.8815	56.5757	126.589	49.3348	60.7983	95.1168
4.494097	1263.34	1335.28	1873.71	1869.38	-273.36	-280.27	-274.90	58.0626	56.2750	63.8815	56.5757	126.589	49.2469	60.8124	95.1168
4.519519	1263.34	1335.28	1872.03	1869.16	-273.43	-279.97	-274.90	58.0626	56.2750	63.8815	56.5181	126.328	49.3348	60.8124	96.0655
4.541388	1263.34	1334.64	1872.03	1868.74	-272.26	-280.24	-274.35	57.5388	56.3630	63.8527	56.3738	126.694	49.4520	60.6994	96.0655
4.559629	1263.34	1334.64	1873.71	1869.16	-274.54	-279.97	-274.90	57.5388	56.2750	63.8527	56.3450	126.328	49.2469	60.9252	95.1168
4.577368	1263.34	1335.28	1873.71	1869.16	-273.43	-280.27	-275.44	57.4805	56.1573	63.8527	56.3450	126.354	49.4520	60.9111	96.0655
4.595524	1263.34	1335.28	1873.71	1869.38	-273.92	-279.97	-275.44	57.4805	56.1573	63.8527	56.3450	126.589	49.4520	60.6994	95.1168
4.613668	1263.34	1335.49	1872.03	1869.16	-273.92	-279.97	-275.44	57.4805	56.1573	63.8527	56.3450	125.126	49.4520	60.6994	95.1168
4.631812	1263.34	1335.28	1873.71	1869.16	-273.92	-280.37	-275.44	57.4805	56.1573	63.8527	56.2296	126.589	49.4520	60.9252	95.1168
4.650477	1263.34	1335.28	1869.92	1869.16	-274.47	-280.24	-275.44	57.4805	56.1573	63.6505	56.2296	126.589	49.4520	60.8688	93.9309
4.668239	1263.34	1335.28	1872.03	1869.16	-273.92	-280.37	-275.44	57.4805	56.1573	63.6505	56.1718	126.328	49.4520	60.7983	95.1168
4.685987	1264.61	1335.49	1870.13	1869.16	-273.92	-280.37	-275.44	57.4805	56.1573	63.6505	56.1718	126.276	49.4520	60.9252	95.1168
4.704124	1263.34	1334.85	1870.13	1869.16	-273.92	-279.97	-275.44	57.3640	55.9220	63.6505	56.1718	126.368	49.4520	60.9252	95.1168
4.722231	1263.34	1335.28	1870.13	1869.38	-273.92	-280.37	-275.44	57.3640	55.9220	63.6505	56.1718	126.589	49.4520	60.2620	95.1168
4.750279	1263.34	1335.28	1870.13	1869.16	-274.47	-280.37	-275.44	57.3640	55.9220	63.6218	56.1718	126.694	49.4520	60.6994	95.1168
4.769606	1263.34	1335.49	1873.71	1869.16	-273.92	-280.50	-275.44	57.3640	55.9220	63.6218	55.6812	126.341	49.4520	60.7983	95.5912
4.787347	1263.34	1335.49	1872.03	1869.16	-273.92	-280.37	-275.44	57.3640	55.9220	63.6218	55.6812	126.589	49.3934	60.8124	96.5399
4.805486	1264.61	1335.49	1870.13	1869.16	-273.92	-280.33	-276.00	57.3640	55.9220	63.6218	55.6812	126.368	49.3934	60.9252	97.0143
4.823615	1264.61	1335.49	1873.71	1869.38	-273.57	-280.37	-276.00	57.3640	55.9220	63.6218	55.6812	126.589	49.4520	60.8124	96.0655
4.841759	1264.61	1335.49	1870.13	1869.16	-274.54	-280.50	-276.00	57.3640	55.9220	63.6218	55.6812	126.368	49.4520	60.9252	95.1168

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER UNITS	PFJC PSIA	PFVCD PSIA	PFVC-1 PSIA	PFVC-2 PSIA	TOJ DEG F	TOFM DEG F	TORL DEG F	TFJ DEG F	TFVI DEG F	TTCJ DEG F	TTCVI DEG F	TRCAO DEG F	TRCFO DEG F	TH201 DEG F	PH20-OUT PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
4.860449	1264.61	1335.49	1873.71	1869.38	-273.43	-280.37	-276.00	57.3640	55.9220	63.4195	55.6812	126.589	49.4520	60.9252	94.1088
4.878184	1264.61	1335.49	1873.71	1869.38	-273.43	-280.37	-276.00	57.1310	55.9220	63.6218	55.6522	126.589	49.4520	60.6853	96.0655
4.896331	1264.61	1335.49	1872.03	1869.16	-273.92	-280.37	-276.56	57.1310	55.9220	63.6218	55.4501	126.354	49.4520	60.7983	96.5399
4.914080	1264.61	1335.49	1872.03	1869.16	-273.92	-280.37	-276.56	57.1310	55.9220	63.4195	55.4501	126.276	49.4520	60.8124	96.0655
4.932203	1264.61	1335.49	1870.13	1869.16	-273.92	-280.37	-276.56	57.1310	55.6868	63.4195	55.4501	126.276	49.4520	60.7983	97.0143
4.950844	1264.61	1335.49	1873.71	1869.38	-273.92	-280.50	-276.56	57.1310	55.6868	63.4195	55.4213	126.172	49.4520	60.7983	96.0655
4.976685	1264.61	1335.49	1873.71	1869.38	-273.36	-280.50	-276.56	57.1310	55.6868	63.4195	55.4501	126.276	49.4520	60.7983	96.0655
4.996597	1264.61	1335.49	1873.71	1869.38	-273.43	-280.50	-276.56	56.8979	55.4514	63.3907	55.4213	126.276	49.4520	60.3043	94.1088
5.014372	1264.61	1335.49	1873.71	1869.38	-273.43	-280.37	-276.56	56.8979	55.4514	63.3907	55.4213	126.276	49.4812	60.8124	95.5912
5.032479	1264.61	1335.49	1873.71	1869.38	-272.88	-280.37	-276.56	56.8979	55.4514	63.3907	55.2191	126.903	49.4812	60.7983	95.1168
5.051092	1264.61	1335.49	1870.13	1869.16	-273.92	-280.50	-276.63	56.6647	55.4514	63.1884	55.2191	126.276	49.4812	60.6994	95.1168
5.069325	1264.61	1336.54	1870.13	1869.16	-273.92	-280.50	-277.13	56.8979	55.2159	63.3329	55.2191	126.328	49.4520	60.6994	94.0495
5.087062	1264.61	1336.54	1873.71	1869.38	-273.36	-280.37	-276.63	56.8979	55.2159	63.1884	55.2191	126.328	49.4812	60.8429	95.1168
5.105183	1264.61	1336.96	1870.13	1869.16	-273.43	-280.50	-276.63	56.6647	55.2159	63.1595	55.1901	126.276	49.4812	60.8124	97.9037
5.123325	1264.61	1336.96	1870.13	1869.16	-273.43	-280.50	-277.13	56.6647	55.2159	63.1595	55.1034	126.276	49.4812	60.2620	97.8444
5.141511	1264.61	1336.96	1873.71	1869.38	-273.92	-280.50	-276.56	56.6647	55.2159	63.1595	54.9879	126.328	49.4520	60.8829	96.0655
5.159726	1264.61	1336.96	1873.71	1869.38	-273.92	-280.50	-276.56	56.4315	55.2159	63.1595	54.9879	126.368	49.4520	60.9252	95.1168
5.177460	1265.87	1337.17	1870.13	1869.38	-274.47	-280.50	-276.56	56.4315	55.2159	63.1595	54.9879	126.589	49.4812	60.7983	93.6937
5.203675	1264.61	1337.17	1873.71	1869.38	-273.92	-280.50	-276.63	56.4315	54.9803	63.1595	54.9879	126.328	49.4812	60.8124	93.6937
5.223935	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-277.13	56.4315	54.9803	63.1595	54.9879	126.276	49.4812	60.6994	94.1088
5.241988	1265.87	1336.96	1873.71	1869.38	-274.47	-280.50	-277.13	56.4315	54.9803	62.9573	54.7566	126.276	49.4812	60.6994	95.1168
5.260645	1265.87	1336.96	1870.13	1869.38	-273.43	-280.50	-276.63	56.1983	54.9803	62.9573	54.7566	126.276	49.4812	60.6994	95.1168
5.278392	1265.87	1336.96	1870.13	1869.38	-273.92	-280.50	-277.13	56.4315	54.9803	62.9573	54.7566	126.354	49.4812	60.7983	95.1168
5.296532	1265.87	1336.96	1873.71	1869.38	-273.92	-280.50	-277.13	56.1983	54.9803	62.9283	54.7566	126.589	49.4812	60.2620	95.5912
5.314644	1265.87	1337.17	1870.13	1869.38	-273.98	-280.50	-276.56	56.4315	54.9803	62.9573	54.7566	126.368	49.4812	60.8124	95.5912
5.332766	1264.61	1337.17	1873.71	1869.38	-273.36	-280.50	-277.62	56.1983	54.9803	62.8707	54.7277	126.328	49.4812	60.7983	97.0143
5.351472	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-277.13	56.1983	54.4796	62.9283	54.7277	126.341	49.4812	60.4736	96.0655
5.369718	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-277.13	56.1983	54.4796	62.8128	54.7277	126.328	49.6862	60.2620	97.0143
5.387458	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-277.20	56.1983	54.3912	62.7261	54.5253	126.328	49.4812	61.3765	97.0143
5.405556	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-277.20	56.1983	54.3912	62.7261	54.5253	126.589	49.4812	60.9252	95.1168
5.431817	1265.87	1337.17	1873.71	1869.38	-273.43	-280.50	-277.20	56.1983	54.3912	62.7261	54.5253	126.354	49.4812	60.6994	93.9309
5.453394	1265.87	1337.17	1873.71	1869.38	-273.43	-280.50	-277.41	56.1983	54.3912	62.6971	54.4096	126.328	49.4812	60.8124	95.1168
5.471575	1265.87	1337.17	1870.13	1869.38	-273.92	-280.50	-277.41	55.6732	54.2734	62.6971	54.3806	126.328	49.6862	60.9111	95.1168
5.489776	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-277.41	55.6732	54.2734	62.6971	54.3228	126.341	49.6862	60.8124	95.1168
5.507853	1265.87	1337.17	1873.71	1869.38	-274.47	-280.50	-277.13	55.6732	54.2734	62.6971	54.3228	126.341	49.6862	60.3466	95.5912
5.525596	1265.87	1337.17	1873.71	1869.38	-274.47	-280.50	-277.41	55.6732	54.2734	62.6971	54.3228	126.341	49.6862	60.8124	95.5912
5.543711	1265.87	1337.17	1873.71	1869.38	-273.36	-280.50	-277.62	55.6149	54.2734	62.5815	54.3228	126.368	49.6862	60.9252	94.1088
5.560907	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-277.13	55.6149	54.2734	62.5237	54.3228	126.485	49.6862	60.8124	93.9309
5.580573	1265.87	1337.17	1873.71	1869.38	-273.36	-280.50	-277.62	55.6149	54.2734	62.5237	54.3228	126.485	49.6862	60.9111	95.1168
5.598312	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-277.41	55.6149	54.2734	62.5237	54.3228	126.368	49.6862	60.9252	95.5912
5.616422	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-277.48	55.6149	54.2734	62.5237	54.0625	126.368	49.6862	60.9111	96.0655
5.634163	1265.87	1337.17	1873.71	1869.38	-274.54	-280.50	-277.62	55.4980	54.2734	62.5237	53.8309	126.354	49.7154	60.7559	96.0655
5.660442	1265.87	1337.17	1873.71	1869.38	-273.43	-280.50	-277.62	55.4980	54.0376	62.5237	53.8309	126.328	49.8032	60.7983	95.1168
5.681947	1265.87	1337.17	1873.71	1872.97	-276.75	-280.50	-278.25	55.4980	54.0376	62.5237	53.8309	125.126	49.7154	60.7983	95.1168
5.700625	1265.87	1337.17	1873.71	1869.38	-273.43	-280.50	-277.62	55.4980	54.0376	62.5237	53.8309	126.354	49.7154	60.6994	96.0655
5.718711	1265.87	1337.17	1870.13	1869.38	-273.36	-280.50	-277.62	55.4980	54.0376	62.5237	53.8309	126.368	49.7154	60.9252	97.4886
5.737086	1265.87	1337.17	1870.13	1869.38	-273.98	-280.50	-278.82	56.4315	52.5031	63.3907	53.8309	126.798	50.4470	56.6396	97.0143
5.755479	1265.87	1337.17	1873.71	1869.38	-273.92	-280.50	-278.82	53.3936	44.0692	60.1783	45.0121	126.589	43.1011	58.5518	96.0655
5.773837	1257.03	1343.71	1873.71	1869.38	-274.47	-280.50	-278.25	54.3296	50.2550	61.3373	49.1865	126.368	46.6945	60.4736	95.1168

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PFJC	PFVCD	PFVC-1	PFVC-2	TOJ	TOBL	TFVI	TTCVI	TRCFO	TH20I	PH20-OUT				
PARAMETER	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA				
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA				
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
5.792159	1085.17	1510.71	1880.44	1877.62	-273.43	-280.76	-277.62	55.2645	53.5657	62.0320	53.1360	126.368	48.9833	60.9252	95.5912
5.811543	616.376	1853.37	1967.98	1968.07	-270.61	-280.50	-278.25	55.2645	54.2734	62.5237	54.3228	126.589	49.8618	60.9252	95.5912
5.830895	284.047	2028.60	2031.11	2028.30	-250.10	-280.50	-278.82	53.6277	54.4503	62.2345	54.5253	126.589	49.7154	60.7983	94.1088
5.849737	176.482	2054.11	2042.05	2035.28	-224.80	-280.50	-278.82	44.9191	57.3325	62.0031	57.2964	126.328	49.7154	60.8124	93.2193
5.868085	161.477	2036.19	2028.58	2024.71	-203.35	-280.76	-276.56	31.6322	59.6778	61.8005	59.3685	126.172	49.7154	60.9111	95.5912
5.893853	141.259	2015.10	2016.80	2014.57	-165.23	-280.50	-277.41	15.3851	60.6139	61.1057	60.2878	126.276	49.6862	60.2620	97.0143
5.914720	114.723	2008.77	2011.75	2009.49	-138.16	-280.76	-277.13	7.59537	60.6139	60.7580	60.4887	126.276	49.3934	60.6994	97.4886
5.932979	95.6112	2003.50	2008.38	2004.63	-119.83	-280.50	-276.56	4.19742	60.6139	60.3812	60.2878	126.276	48.9833	60.8124	97.4886
5.951852	84.3966	2001.60	2003.33	2001.25	-107.28	-280.76	-276.63	2.95738	60.6139	59.9172	60.2878	126.328	48.5729	60.8124	94.1088
5.971185	79.3422	1998.44	2001.65	1997.87	-98.252	-280.76	-277.13	3.20558	60.6139	59.4821	60.2878	126.328	47.6050	61.1931	92.7450
5.990526	76.8150	1996.54	1999.96	1997.66	-90.444	-280.76	-277.13	4.44513	60.6139	59.2498	60.2878	127.112	46.8120	60.7983	92.2706
6.008939	74.9196	1995.70	1998.28	1995.97	-84.143	-280.76	-276.56	6.42346	60.6139	58.8723	60.2878	125.440	45.9595	60.6994	92.7450
6.027340	74.9196	1995.28	1998.28	1994.70	-78.947	-280.76	-277.13	8.14980	60.6139	58.8142	60.2878	122.979	45.2238	60.9111	93.2193
6.045729	74.2878	1991.69	1996.60	1994.70	-75.508	-280.76	-277.13	10.1178	60.6139	58.2912	60.2878	118.722	44.8115	60.9252	91.3219
6.064099	74.4457	1991.69	1994.91	1991.11	-72.772	-280.50	-277.13	12.0811	60.1167	58.0877	60.2878	113.704	43.8093	60.0219	91.3219
6.082433	74.2878	1990.01	1994.91	1990.90	-71.365	-280.50	-277.13	14.0402	60.6139	57.8551	60.2878	107.273	43.0421	60.7983	92.2706
6.101794	74.2878	1989.80	1991.34	1989.42	-68.054	-280.76	-277.13	15.4768	60.6139	57.6223	60.2878	105.458	42.3331	60.4172	91.3219
6.127932	74.9196	1988.32	1989.86	1989.21	-65.307	-280.76	-277.13	17.9490	60.6139	57.3896	60.2878	100.042	41.4460	61.1649	91.3219
6.147299	75.0775	1988.11	1990.71	1987.73	-63.244	-280.76	-276.63	19.2906	60.6139	57.3605	60.2878	96.1077	41.0318	60.9252	90.1359
6.165618	75.0775	1986.63	1989.86	1987.73	-61.648	-280.76	-276.56	20.8755	60.6139	57.1568	60.2878	91.8836	40.2618	60.8124	90.3731
6.183955	75.0775	1984.95	1988.39	1987.73	-60.308	-280.76	-276.56	21.8507	60.6139	57.1277	60.4887	88.2931	39.7875	60.8124	91.3219
6.202334	75.3934	1984.95	1988.18	1985.82	-57.884	-280.76	-277.13	23.0698	60.6139	57.0112	60.2878	85.1254	39.3426	60.9252	90.3731
6.221704	75.3934	1984.95	1988.18	1984.34	-55.927	-280.76	-277.13	23.8014	60.6139	56.9529	60.5175	82.4949	39.1349	60.7700	91.3219
6.241070	75.3934	1984.74	1988.18	1984.34	-53.312	-280.76	-277.13	24.7772	60.6139	56.9529	60.5175	81.2864	38.6006	60.7983	91.3219
6.260427	75.3934	1984.74	1988.18	1984.34	-51.947	-280.76	-277.13	25.7535	60.6139	56.9529	60.5175	78.6439	38.1550	61.3624	90.1359
6.278866	78.0786	1983.05	1988.18	1984.13	-49.677	-280.76	-277.13	26.2419	60.6139	56.9529	60.5175	76.7669	37.8875	60.8688	91.3219
6.297263	75.3934	1983.26	1984.81	1983.71	-47.702	-280.76	-277.41	26.9749	60.6139	56.9529	60.5175	75.4396	37.6497	60.8124	91.3219
6.315629	78.0786	1981.78	1984.81	1982.65	-46.676	-280.76	-276.56	27.7084	60.6139	56.4578	60.5175	74.5535	37.4117	60.7983	90.3731
6.334019	78.0786	1981.78	1984.81	1982.44	-44.669	-280.50	-276.56	28.4425	60.6139	56.9529	60.5175	73.6663	37.2333	60.9252	92.2706
6.359755	78.0786	1981.78	1984.81	1982.44	-42.749	-280.76	-277.13	28.9322	60.6139	56.4578	60.5175	72.0005	36.7274	60.7983	91.3219
6.379880	78.0786	1981.78	1984.81	1982.02	-40.510	-280.76	-276.00	29.6675	60.6139	56.3705	60.7183	71.1107	36.6977	60.8688	91.3219
6.397965	78.0786	1981.78	1984.81	1981.60	-39.048	-280.76	-277.13	30.1581	60.8478	56.3705	60.7183	70.4426	36.4595	60.3607	92.2706
6.416315	78.0786	1979.67	1983.13	1981.17	-37.671	-280.76	-276.56	30.6490	60.8478	56.4287	60.7183	69.8856	36.2509	60.5865	92.2706
6.434697	78.0786	1978.20	1983.13	1981.17	-36.256	-280.76	-277.41	30.8947	60.8478	56.2247	60.7183	69.3839	36.0127	60.8124	92.2706
6.453098	78.0786	1978.20	1983.13	1981.17	-34.966	-280.76	-277.13	31.0790	60.6139	56.1956	60.6609	69.2166	36.0127	61.2637	91.7962
6.471958	78.0786	1978.20	1981.45	1981.17	-33.677	-280.76	-277.13	31.6322	60.6139	56.2247	60.6609	68.8818	35.9828	60.8124	91.3219
6.491326	78.0786	1978.20	1981.45	1981.17	-33.034	-280.76	-276.56	32.0308	60.6139	56.2247	60.7183	68.6587	35.7742	60.9219	90.8475
6.510713	78.0786	1978.20	1981.45	1981.17	-31.430	-280.76	-277.13	32.5120	60.6139	56.1956	60.6609	68.3237	35.7444	60.9252	91.3219
6.529659	78.0786	1977.99	1981.45	1979.06	-30.189	-280.76	-277.13	32.7525	60.8478	56.1956	60.7183	68.1004	35.5059	60.6853	91.7962
6.548023	78.0786	1977.99	1981.45	1979.06	-28.911	-280.76	-277.41	32.7525	60.8478	56.1956	60.7183	67.8769	35.5059	60.7983	91.3219
6.566368	78.0786	1977.57	1981.45	1979.06	-28.552	-280.76	-276.56	32.8727	60.8478	55.9915	60.6322	67.6255	35.3867	60.2620	91.7962
6.592486	78.0786	1976.51	1981.45	1977.58	-28.552	-280.76	-277.41	33.4736	60.8478	55.9625	60.7470	65.1910	35.3270	60.9111	91.3219
6.613395	78.0786	1976.51	1981.45	1977.58	-26.045	-280.76	-277.13	33.7138	60.8478	55.9915	60.7183	67.3181	35.3270	60.8124	91.3219
6.631764	78.0786	1976.51	1981.45	1977.58	-25.053	-280.76	-277.41	33.9539	60.8478	55.9625	60.7183	66.9825	35.3270	61.1649	92.2706
6.651083	78.0786	1976.30	1977.87	1977.58	-24.063	-280.76	-276.63	34.4339	60.8478	55.9915	60.7183	66.7309	35.0585	60.2620	93.6937
6.670454	78.0786	1976.30	1977.87	1977.37	-23.509	-280.76	-276.56	34.4339	60.8478	55.9625	60.5175	66.6470	34.8198	60.9252	92.2706
6.688862	78.0786	1976.30	1979.76	1977.37	-22.561	-280.76	-277.13	34.6738	60.8478	55.9042	60.5175	66.5351	34.8198	61.1931	90.1359
6.707196	78.0786	1975.88	1977.66	1977.37	-21.457	-280.76	-277.13	34.6738	60.8478	55.7583	60.7183	66.1993	34.8198	60.9252	91.7962
6.725561	78.0786	1975.88	1977.87	1977.37	-20.984	-280.76	-277.13	34.7937	60.8478	55.7583	60.7183	66.0873	34.8198	60.9111	92.2706

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PRCAO	PGH20T		WH20C-1		WH20C-2		WH20P-1		WH20P-2		TW-A3		TW-A4		TW-A5		TW-A6		TW-B4		TW-B6		TW-C1	
PARAMETER	PSIA	PSIA		PSIA		LB-W		LB-W		LB-W		DEG F		DEG F		DEG F		DEG F		DEG F		DEG F		DEG F	
UNITS	PSIA	PSIA		PSIA		LB-W		LB-W		LB-W		DEG F		DEG F		DEG F		DEG F		DEG F		DEG F		DEG F	
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184										
-245676	892.154	1111.60	1208.35	10.8455	10.7087	1.32606	13.4611	62.2749	63.3838	88888.0	59.7573	60.4043	61.1012	68.1676	63.5970										
-227491	887.052	1106.36	1208.35	10.8688	10.6948	1.33286	13.4817	62.2749	63.3838	88888.0	59.7573	61.3889	60.9605	68.1676	63.5970										
-209285	881.949	1102.80	1208.35	10.8688	10.7031	1.33626	13.4817	63.3986	63.3838	88888.0	59.7573	60.4043	60.9605	68.1676	63.5970										
-200409	881.949	1102.80	1208.35	10.8455	10.6990	1.33513	13.4779	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	68.0275	63.5970										
-190053	883.065	1103.01	1208.35	10.8374	10.7087	1.33045	13.4779	62.2749	63.3838	88888.0	59.7573	61.3889	60.9605	68.0275	61.3472										
-184933	884.022	1104.48	1208.82	10.8360	10.6976	1.32946	13.4461	62.2749	63.3838	88888.0	59.7573	60.4043	60.9605	68.1676	62.4724										
-179813	884.341	1104.48	1208.82	10.8360	10.6976	1.32833	13.4443	62.2749	63.3838	88888.0	59.7573	61.3889	60.9605	68.1676	63.5970										
-174693	885.617	1104.69	1208.82	10.8264	10.7087	1.32833	13.4443	62.2749	63.3838	88888.0	59.7573	60.4043	60.9605	68.0275	61.4879										
-169573	886.892	1106.15	1208.35	10.8251	10.6976	1.32606	13.4443	62.2749	63.3838	88888.0	59.7573	61.3889	60.9605	67.0461	63.5970										
-164453	886.892	1106.36	1208.82	10.8251	10.6893	1.32606	13.4312	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	68.1676	63.5970										
-159333	887.052	1106.99	1208.82	10.8251	10.6990	1.32606	13.4312	62.2749	63.3838	88888.0	59.4758	60.4043	60.9605	68.0275	61.3472										
-154213	889.762	1107.83	1208.35	10.8251	10.6948	1.32493	13.4293	62.2749	63.3838	88888.0	59.7573	60.4043	60.9605	67.6069	62.4724										
-149093	889.762	1108.04	1208.35	10.8251	10.6976	1.32493	13.4293	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	68.1676	63.5970										
-143973	890.081	1111.60	1208.82	10.8251	10.6948	1.32493	13.4293	62.2749	63.3838	88888.0	59.4758	61.3889	60.9605	68.0275	61.4879										
-138853	889.762	1111.60	1208.82	10.8141	10.6893	1.32606	13.4405	63.3986	63.3838	88888.0	59.4758	60.4043	60.9605	68.0275	63.5970										
-133733	889.762	1111.60	1208.35	10.8141	10.6754	1.32606	13.4443	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	68.1676	63.5970										
-117050	887.052	1108.04	1208.35	10.8251	10.6921	1.32719	13.4443	62.2749	63.3838	88888.0	59.7573	60.4043	60.9605	67.0461	62.4724										
-111930	887.052	1108.04	1206.35	10.8251	10.6921	1.32719	13.4443	63.2581	63.3838	88888.0	59.7573	61.5295	60.9605	68.1676	63.5970										
-106810	887.052	1108.04	1208.82	10.8251	10.6948	1.32833	13.4461	62.2749	63.3838	88888.0	59.4758	61.3889	60.9605	68.0275	61.3472										
-101690	887.052	1108.04	1208.82	10.8264	10.6976	1.32606	13.4461	62.2749	63.3838	88888.0	59.6165	61.3889	60.9605	68.0275	62.4724										
-096570	886.892	1108.04	1208.82	10.8360	10.6893	1.32606	13.4461	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	68.1676	63.5970										
-091450	885.776	1107.83	1208.82	10.8360	10.6921	1.32493	13.4443	62.2749	63.3838	88888.0	59.4758	60.4043	60.9605	67.0461	61.4879										
-086330	884.500	1106.36	1208.82	10.8251	10.6921	1.32493	13.4405	62.2749	63.3838	88888.0	59.4758	61.3889	60.9605	68.1676	62.4724										
-081210	884.341	1106.15	1208.82	10.8360	10.6921	1.32493	13.4312	62.2749	63.3838	88888.0	59.4758	62.2325	60.9605	68.1676	63.5970										
-076090	884.341	1106.36	1208.82	10.8360	10.6948	1.32606	13.4461	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	67.0461	61.3472										
-070970	884.341	1106.15	1208.82	10.8374	10.7087	1.32606	13.4461	62.2749	63.3838	88888.0	59.4758	61.3889	60.9605	67.7471	63.5970										
-065850	884.341	1104.69	1208.82	10.8374	10.7087	1.32833	13.4461	62.2749	63.3838	88888.0	59.4758	62.2325	60.9605	68.1676	63.5970										
-060730	884.341	1104.69	1208.82	10.8374	10.7087	1.32833	13.4461	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	67.0461	61.3472										
-044232	884.500	1104.69	1208.35	10.8360	10.6976	1.32946	13.4461	62.2749	63.3838	88888.0	59.7573	60.4043	60.9605	68.1676	63.5970										
-039112	883.225	1104.69	1208.82	10.8360	10.7045	1.33003	13.4443	62.2749	63.3838	88888.0	59.7573	61.3889	60.9605	67.0461	61.3472										
-033992	881.949	1104.48	1208.20	10.8360	10.6990	1.33003	13.4443	62.2749	63.3838	88888.0	59.4758	61.5295	60.9605	68.0275	62.4724										
-028872	881.949	1104.06	1208.82	10.8360	10.6990	1.33045	13.4461	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	68.1676	63.5970										
-023752	881.949	1104.06	1208.82	10.8360	10.6990	1.33017	13.4461	62.2749	63.3838	88888.0	59.4758	61.3889	60.9605	67.0461	61.3472										
-018632	884.341	1104.69	1208.82	10.8360	10.6990	1.32960	13.4461	62.2749	64.5064	88888.0	59.6165	60.4043	60.9605	68.0275	63.5970										
-013512	885.617	1106.15	1208.82	10.8360	10.6990	1.32946	13.4461	62.1344	63.3838	88888.0	59.7573	61.5295	60.9605	68.1676	63.5970										
-008392	886.892	1106.36	1208.82	10.8360	10.6990	1.32833	13.4461	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	67.0461	61.3472										
-003272	887.052	1106.36	1208.82	10.8415	10.6990	1.32719	13.4461	62.2749	63.3838	88888.0	62.1488	61.5295	60.9605	68.1676	62.4724										
-001848	887.052	1107.41	1208.82	10.8455	10.7087	1.32606	13.4461	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	68.1676	63.5970										
006968	887.052	1107.83	1208.82	10.8578	10.6976	1.32606	13.4461	62.2749	63.3838	88888.0	59.7573	60.4043	60.9605	67.0461	61.3472										
012088	887.052	1108.04	1208.82	10.8578	10.6990	1.32606	13.4461	62.2749	64.5064	88888.0	59.4758	61.3889	60.9605	68.0275	63.5970										
028558	886.573	1108.04	1208.82	10.8578	10.6976	1.32379	13.4461	62.2749	63.3838	88888.0	59.7573	60.4043	60.9605	67.0461	61.4879										
033678	886.892	1108.04	1208.82	10.8688	10.6990	1.32379	13.4461	62.2749	63.3838	88888.0	59.4758	60.4043	60.9605	68.0275	63.5970										
038798	886.892	1108.04	1208.82	10.8688	10.7059	1.32379	13.4461	63.2581	63.3838	88888.0	59.4758	62.2325	60.9605	68.1676	63.5970										
043918	887.052	1108.04	1208.82	10.8688	10.7059	1.32379	13.4461	62.2749	63.3838	88888.0	59.7573	61.5295	60.9605	67.0461	61.3472										
049038	887.052	1107.83	1208.82	10.8688	10.6976	1.32606	13.4461	62.2749	63.3838	88888.0	59.3350	60.4043	60.9605	68.0275	63.5970										
054158	887.052	1107.83	1208.82	10.8701	10.7101	1.32719	13.4461	62.2749	64.5064	88888.0	59.4758	62.2325	60.9605	68.1576	62.4724										



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	PRCAO PSIA	PH20-J PSIA	PGH20T PSIA	WH20C-1 LB-W	WH20C-2 LB-W	WH20P-1 LB-W	WH20P-2 LB-W	TW-A3 DEG F	TW-A4 DEG F	TW-A5 DEG F	TW-A6 DEG F	TW-B4 DEG F	TW-B5 DEG F	TW-B6 DEG F	TW-C1 DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
.074638	889.762	1111.60	1208.82	10.8797	10.6990	1.33286	13.4779	62.2749	63.3838	88888.0	59.4758	62.5137	60.9605	67.0461	61.3472
.079758	889.762	1111.60	1208.82	10.8688	10.7087	1.33399	13.4779	62.2749	63.3838	88888.0	59.3350	59.9822	60.9605	68.1676	63.5970
.084878	889.762	1111.60	1208.82	10.8688	10.7087	1.33513	13.4779	62.2749	64.5064	88888.0	59.3350	61.3889	60.9605	68.1676	62.4724
.101516	889.762	1111.60	1208.20	10.8688	10.7087	1.33513	13.4592	62.2749	63.3838	88888.0	59.3350	60.4043	60.9605	68.0275	63.5970
.106636	889.762	1111.60	1208.82	10.8688	10.7101	1.33399	13.4592	62.2749	64.5064	88888.0	59.4758	61.5295	60.9605	68.1676	63.5970
.111756	889.762	1108.04	1208.82	10.8688	10.7101	1.33286	13.4461	62.2749	64.5064	88888.0	59.4758	61.5295	60.9605	67.0461	61.3472
.116876	889.762	1108.04	1208.82	10.8455	10.7101	1.33173	13.4461	62.2749	64.5064	88888.0	59.3350	60.4043	60.9605	68.1676	63.5970
.121996	889.762	1108.04	1208.82	10.8374	10.7101	1.33173	13.4461	63.3986	64.5064	88888.0	59.4758	61.5295	60.9605	68.1676	63.5970
.127116	889.762	1108.04	1208.82	10.8360	10.7087	1.33286	13.4461	62.2749	63.3838	88888.0	59.4758	61.5295	60.9605	67.0461	61.3472
.132236	889.762	1111.60	1208.82	10.8251	10.7101	1.33017	13.4611	62.2749	64.5064	88888.0	59.3350	61.3889	62.0859	68.1676	62.4724
.137356	889.762	1111.60	1208.82	10.8251	10.7101	1.32946	13.4461	62.2749	64.5064	88888.0	59.4758	61.5295	62.0859	68.1676	62.4724
.142476	890.081	1111.60	1208.82	10.8251	10.7101	1.32833	13.4461	62.2749	63.3838	88888.0	59.4758	61.5295	60.9605	67.0461	61.3472
.147596	891.995	1112.44	1208.82	10.8251	10.7101	1.32719	13.4461	62.2749	64.5064	88888.0	59.3350	61.3889	62.0859	68.1676	62.4724
.152716	892.154	1112.86	1208.82	10.8251	10.7101	1.32606	13.4461	62.2749	63.3838	88888.0	59.3350	60.2636	60.9605	68.1676	62.4724
.157836	891.995	1111.60	1208.82	10.8251	10.7101	1.32493	13.4461	62.2749	63.3838	88888.0	59.4758	61.5295	60.9605	67.0461	61.3472
.174432	890.879	1111.60	1208.82	10.8251	10.7101	1.32266	13.4461	62.2749	64.5064	88888.0	59.3350	61.3889	62.0859	68.1676	62.4724
.179552	890.879	1111.60	1208.82	10.8360	10.7087	1.32096	13.4461	62.2749	64.5064	88888.0	59.3350	61.3889	60.9605	67.0461	61.3472
.184672	890.719	1111.60	1208.82	10.8251	10.7101	1.32039	13.4779	62.2749	63.3838	88888.0	59.3350	60.4043	62.0859	68.1676	63.5970
.189792	889.762	1111.60	1208.82	10.8374	10.7212	1.32039	13.4779	62.1344	63.3838	88888.0	59.3350	60.4043	62.0859	69.2885	61.3472
.194912	887.052	1109.51	1208.82	10.8251	10.7059	1.32039	13.4779	62.2749	63.3838	88888.0	59.3350	61.3889	62.0859	68.0275	61.3472
.200032	886.892	1111.60	1208.82	10.8360	10.7101	1.32039	13.4779	62.2749	64.5064	88888.0	59.3350	61.3889	63.2107	68.1676	63.5970
.205152	886.892	1111.60	1208.82	10.8360	10.7101	1.32096	13.4461	62.2749	64.5064	88888.0	59.3350	60.4043	63.2107	68.1676	62.4724
.210272	886.892	1111.60	1208.82	10.8360	10.7101	1.32266	13.4461	62.2749	63.3838	88888.0	59.4758	62.2325	62.0859	68.0275	61.3472
.215392	885.776	1108.04	1208.82	10.8374	10.7101	1.32379	13.4461	62.2749	64.5064	88888.0	59.7573	61.5295	63.2107	68.1676	63.5970
.220512	885.776	1108.04	1208.82	10.8374	10.7101	1.32379	13.4461	62.2749	64.5064	88888.0	59.3350	60.4043	63.2107	68.1676	62.4724
.225632	885.776	1107.83	1208.82	10.8374	10.7198	1.32493	13.4443	62.2749	64.5064	88888.0	59.3350	61.5295	63.2107	67.0461	61.3472
.230752	886.892	1108.04	1208.82	10.8360	10.7087	1.32493	13.4443	62.2749	64.5064	88888.0	59.4758	62.2325	63.2107	68.1676	63.5970
.247291	889.762	1111.60	1208.82	10.8455	10.7101	1.32379	13.4461	62.2749	63.3838	88888.0	59.4758	61.5295	63.2107	67.0461	61.3472
.252411	890.400	1111.60	1208.82	10.8455	10.7101	1.32493	13.4461	62.2749	63.3838	88888.0	59.3350	61.3889	63.2107	68.1676	63.5970
.257531	890.879	1111.60	1208.82	10.8455	10.7101	1.32606	13.4779	62.2749	64.5064	88888.0	58.7718	61.5295	63.2107	68.1676	62.4724
.262651	891.995	1111.60	1208.82	10.8455	10.7101	1.32606	13.4779	62.2749	64.5064	88888.0	59.3350	60.4043	62.0859	68.0275	61.3472
.267771	891.995	1111.60	1208.82	10.8455	10.7101	1.32833	13.4779	63.2581	64.5064	88888.0	59.3350	61.5295	63.2107	68.1676	63.5970
.272891	893.271	1111.60	1208.82	10.8455	10.7101	1.32833	13.4779	61.8533	63.3838	88888.0	58.7718	61.3889	63.2107	68.1676	61.3472
.278011	894.546	1111.60	1208.82	10.8578	10.7087	1.32946	13.4817	62.2749	63.3838	88888.0	58.7718	61.3889	63.2107	67.0461	61.3472
.283131	894.706	1112.44	1208.82	10.8578	10.6990	1.33017	13.4817	62.2749	63.3838	88888.0	58.9126	61.5295	63.2107	68.1676	62.4724
.288251	894.706	1112.86	1208.82	10.8455	10.7059	1.33286	13.4779	62.1344	63.3838	88888.0	58.7718	61.3889	63.2107	68.0275	61.3472
.293371	895.981	1112.02	1208.82	10.8701	10.7031	1.33286	13.4779	62.1344	62.2606	88888.0	58.7718	61.5295	63.2107	67.0461	61.3472
.298491	895.981	1112.02	1208.82	10.8688	10.6976	1.33286	13.4779	61.1506	62.2606	88888.0	58.7718	61.3889	63.2107	67.0461	61.3472
.303611	894.706	1111.60	1208.82	10.8688	10.6990	1.33286	13.4779	61.0100	62.2606	88888.0	58.7718	60.4043	63.2107	66.9058	61.3472
.320116	890.879	1107.20	1208.82	10.8688	10.6976	1.32946	13.4611	61.0100	61.1369	88888.0	57.7859	61.5295	64.3350	66.9058	61.3472
.325236	889.762	1104.69	1208.82	10.8688	10.6976	1.32946	13.4611	61.1506	60.0126	88888.0	57.6451	59.2785	63.2107	66.0642	58.9543
.330356	886.892	1104.06	1208.82	10.8578	10.6893	1.32833	13.4461	61.0100	58.3251	88888.0	57.6451	60.2636	63.2107	63.6778	58.6725
.335476	885.617	1101.33	1208.82	10.8455	10.6976	1.32833	13.4461	60.0258	58.3251	88888.0	57.6451	60.2636	64.3350	66.0642	58.9543
.340596	884.500	1101.33	1208.82	10.8415	10.6893	1.32606	13.4461	59.8851	58.3251	88888.0	57.6451	59.2785	64.3350	66.0642	58.5317
.345716	884.500	1103.01	1208.82	10.8360	10.6893	1.32606	13.4443	59.8851	57.7623	88888.0	57.6451	60.2636	63.2107	63.6778	58.1091
.350836	884.500	1103.01	1208.82	10.8251	10.6768	1.32606	13.4387	59.8851	57.7623	88888.0	57.6451	60.2636	64.3350	66.0642	58.6725
.355956	884.500	1104.69	1208.82	10.8251	10.6893	1.32606	13.4312	59.6038	57.7623	88888.0	56.5177	59.2785	64.3350	63.6778	57.9682
.361076	884.500	1106.36	1208.82	10.8251	10.6893	1.32493	13.4293	58.9004	56.6364	88888.0	56.5177	59.2785	63.2107	63.5374	57.9682
.366196	884.500	1107.83	1208.82	10.8251	10.6893	1.32379	13.4312	57.7744	56.6364	88888.0	56.5177	59.2785	65.4586	66.0642	58.1091

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER UNITS	PRCAU PSIA	PH20-J PSIA	PGH20T PSIA	WH20C-1 LB-W	WH20C-2 LB-W	WH20P-1 LB-W	WH20P-2 LB-W	TW-A3 DEG F	TW-A4 DEG F	TW-A5 DEG F	TW-A6 DEG F	TW-B4 DEG F	TW-B5 DEG F	TW-B6 DEG F	TW-C1 DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
.371316	885.617	1108.04	1208.82	10.8141	10.6893	1.32379	13.4312	58.9004	56.6364	88888.0	55.3899	59.2785	63.2107	63.5374	57.9682
.376436	886.254	1108.04	1208.82	10.8087	10.6893	1.32379	13.4293	58.7597	57.7623	88888.0	55.3899	59.1377	63.2107	62.5539	57.9682
.393074	889.762	1111.60	1208.82	10.8251	10.6893	1.32110	13.4461	58.9004	56.6364	88888.0	55.3899	58.1521	65.4586	63.6778	57.9682
.398194	890.400	1111.60	1208.82	10.8251	10.6921	1.32110	13.4461	58.9004	56.6364	88888.0	55.3899	58.1521	63.2107	62.5539	56.9817
.403314	890.879	1111.60	1208.82	10.8251	10.6893	1.32379	13.4461	58.9004	56.6364	88888.0	55.3899	59.2785	65.4586	63.6778	57.9682
.408434	890.879	1111.60	1208.82	10.8374	10.6976	1.32379	13.4779	58.9004	56.6364	88888.0	55.3899	58.1521	64.3350	62.5539	56.8408
.413554	890.879	1111.60	1208.82	10.8428	10.6935	1.32493	13.4779	57.7744	56.6364	88888.0	55.3899	58.1521	63.2107	62.4134	57.9682
.418674	890.879	1111.60	1208.82	10.8455	10.6976	1.32833	13.4779	57.7744	56.6364	88888.0	55.3899	58.1521	65.4586	63.6778	57.9682
.423794	890.879	1111.60	1208.82	10.8360	10.6893	1.32833	13.4817	58.7597	56.6364	88888.0	55.3899	58.1521	63.2107	62.4134	56.8408
.428914	890.879	1111.60	1208.82	10.8442	10.6921	1.32833	13.4817	57.7744	56.6364	88888.0	55.3899	58.1521	64.3350	62.5539	56.8408
.434034	890.719	1111.60	1208.82	10.8578	10.6948	1.32833	13.4779	57.7744	54.3828	88888.0	55.3899	59.1377	65.4586	63.6778	57.9682
.439154	890.081	1109.51	1208.82	10.8455	10.6990	1.32833	13.4779	57.7744	55.5099	88888.0	54.2615	58.0113	63.2107	61.4295	56.8408
.444274	889.762	1107.83	1208.82	10.8578	10.6948	1.32833	13.4779	57.7744	55.5099	88888.0	54.2615	58.1521	63.2107	61.4295	56.8408
.449394	887.052	1107.83	1208.82	10.8578	10.6976	1.32946	13.4779	57.7744	55.5099	88888.0	55.3899	58.1521	64.3350	63.5374	56.8408
.465837	885.617	1106.36	1208.82	10.8688	10.6990	1.33003	13.4461	57.7744	55.5099	88888.0	55.3899	58.1521	63.2107	61.4295	56.8408
.470957	884.500	1106.36	1208.82	10.8688	10.6976	1.33003	13.4461	57.7744	54.3828	88888.0	55.3899	58.1521	64.3350	63.5374	56.8408
.476077	884.500	1106.36	1208.82	10.8578	10.6976	1.32946	13.4611	57.7744	54.3828	88888.0	55.3899	58.1521	64.3350	62.4134	56.8408
.481197	884.500	1106.36	1208.82	10.8578	10.6948	1.32946	13.4592	57.6336	54.3828	88888.0	55.3899	58.1521	64.3350	61.4295	56.8408
.486317	885.617	1106.36	1208.82	10.8360	10.6893	1.32946	13.4592	57.6336	54.3828	88888.0	55.3899	58.1521	64.3350	62.5539	56.8408
.491437	885.776	1107.83	1208.82	10.8360	10.6893	1.32833	13.4461	57.6336	54.3828	88888.0	54.2615	58.0113	63.2107	61.4295	56.8408
.496557	886.892	1108.04	1208.82	10.8578	10.6948	1.32833	13.4461	57.6336	54.3828	88888.0	54.2615	58.1521	63.2107	61.2888	56.8408
.501677	887.052	1108.04	1208.82	10.8442	10.6893	1.32833	13.4461	57.7744	54.3828	88888.0	55.3899	58.1521	64.3350	62.5539	56.8408
.506797	889.762	1109.51	1208.82	10.8442	10.6921	1.32719	13.4443	57.6336	54.3828	88888.0	53.1327	58.1521	64.3350	61.4295	56.8408
.511917	889.762	1111.60	1208.82	10.8578	10.6976	1.32833	13.4461	57.3521	55.5099	88888.0	54.2615	58.0113	64.3350	61.4295	56.8408
.517037	889.762	1111.60	1208.82	10.8415	10.6948	1.32833	13.4461	57.6336	54.3828	88888.0	53.1327	58.1521	65.4586	62.5539	56.8408
.522157	889.762	1111.60	1208.82	10.8415	10.6921	1.32833	13.4461	57.7744	54.3828	88888.0	53.1327	58.1521	64.3350	61.4295	56.8408
.538726	887.052	1111.60	1208.82	10.8688	10.6990	1.32833	13.4461	57.6336	54.3828	88888.0	53.1327	58.1521	65.4586	62.5539	56.8408
.543846	889.762	1111.60	1208.82	10.8688	10.6990	1.32719	13.4461	56.5071	53.2553	88888.0	53.1327	57.7296	63.2107	60.3044	55.7128
.548966	889.762	1111.60	1208.82	10.8415	10.6976	1.32719	13.4461	56.6479	53.2553	88888.0	53.1327	58.0113	64.3350	61.2888	56.8408
.554086	889.762	1111.60	1208.82	10.8688	10.6990	1.32719	13.4461	56.2254	52.1273	88888.0	52.0033	58.0113	65.4586	61.4295	56.8408
.559206	889.762	1111.60	1208.82	10.8688	10.6990	1.32606	13.4461	55.6618	52.1273	88888.0	49.7430	57.4478	64.3350	60.3044	55.7128
.564326	887.052	1108.04	1208.82	10.8688	10.7059	1.32606	13.4461	54.3934	50.9987	88888.0	49.7430	57.0252	65.4586	59.1788	56.8408
.569446	887.052	1106.36	1208.82	10.8688	10.7059	1.32493	13.4443	53.1243	49.3050	88888.0	48.6122	56.8843	65.4586	59.1788	56.8408
.574566	886.892	1106.36	1208.82	10.8688	10.7059	1.32379	13.4461	53.1243	48.7403	88888.0	46.3492	56.8843	65.4586	57.0667	54.5843
.579686	885.776	1106.36	1208.82	10.8578	10.7031	1.32379	13.4443	51.0077	47.6103	88888.0	46.3492	56.3206	66.5817	54.6709	55.7128
.584806	885.776	1106.15	1208.82	10.8415	10.7031	1.32379	13.4461	51.9956	47.6103	88888.0	44.0844	56.0387	66.5817	53.5425	56.8408
.589926	885.776	1106.36	1208.82	10.8360	10.6976	1.32379	13.4461	49.7369	47.6103	88888.0	44.0844	56.0387	66.5817	51.2845	55.7128
.595046	885.776	1106.36	1208.82	10.8251	10.7059	1.32379	13.4461	48.7462	46.4799	88888.0	41.3928	56.0387	67.1430	50.1547	55.7128
.611667	884.341	1106.15	1208.82	10.8251	10.7059	1.32379	13.4611	47.6176	45.3491	88888.0	39.5500	53.5002	67.1430	49.0244	54.5843
.616787	881.949	1104.69	1208.82	10.8360	10.7087	1.32379	13.4611	47.4763	44.2178	88888.0	39.5500	53.5002	67.1430	48.8831	54.5843
.621907	881.949	1104.69	1208.82	10.8251	10.7087	1.32493	13.4461	47.4763	44.2178	88888.0	39.5500	53.6413	69.9473	49.0244	55.7128
.627027	883.065	1106.15	1208.82	10.8251	10.7059	1.32493	13.4461	47.4763	44.2178	88888.0	39.5500	53.5002	68.8260	48.0350	54.5843
.632147	883.225	1106.36	1208.82	10.8251	10.7087	1.32606	13.4779	46.9109	43.0862	88888.0	38.4155	53.2180	69.9473	45.6309	54.5843
.637267	884.341	1106.36	1208.82	10.8251	10.7087	1.32606	13.4461	46.6281	43.0862	88888.0	37.2807	52.5122	69.9473	48.0350	54.5843
.642387	884.500	1106.36	1208.82	10.8251	10.7059	1.32493	13.4461	46.9109	40.2553	88888.0	37.2807	52.3711	69.9473	46.7625	54.5843
.647507	884.500	1106.36	1208.82	10.8251	10.7059	1.32379	13.4461	46.6281	40.5385	88888.0	37.2807	51.3828	69.9473	48.0350	54.5843
.652627	884.500	1106.15	1208.82	10.8360	10.6990	1.32379	13.4461	48.6068	41.9541	88888.0	37.2807	52.5122	69.9473	48.8831	54.5843
.657747	886.892	1107.20	1208.82	10.8360	10.6976	1.32124	13.4461	56.6479	47.6103	88888.0	46.3492	57.0252	62.0859	57.0667	56.8408
.662867	889.762	1107.83	1208.82	10.8360	10.6990	1.32124	13.4461	75.7195	62.2606	88888.0	65.5206	68.1286	49.2526	79.2094	65.8445

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 I.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	PRCAO PSIA	PH20-J PSIA	PGH2OT PSIA	WH20C-1 LB-W	WH20C-2 LB-W	WH20P-1 LB-W	WH20P-2 LB-W	TW-A3 DEG F	TW-A4 DEG F	TW-A5 DEG F	TW-A6 DEG F	TW-B4 DEG F	TW-B5 DEG F	TW-B6 DEG F	TW-C1 DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
.667987	889.762	1108.04	1208.82	10.8415	10.6990	1.32096	13.4461	104.535	87.9377	88888.0	95.4752	83.7681	30.8687	114.699	83.7353
.684163	890.400	1111.60	1208.82	10.8688	10.7101	1.32379	13.4461	176.006	157.767	88888.0	167.474	118.227	-10.380	207.727	132.110
.689283	890.081	1111.60	1208.82	10.8688	10.7087	1.32606	13.4611	222.588	206.250	88888.0	212.804	140.806	-35.620	276.700	166.731
.694403	889.762	1111.60	1208.82	10.8455	10.7101	1.32719	13.4461	269.816	257.525	88888.0	257.642	163.632	-60.401	344.256	205.570
.699523	889.762	1111.60	1208.82	10.8688	10.7087	1.32833	13.4779	315.840	311.198	88888.0	300.116	187.475	-82.157	410.829	246.983
.704643	889.762	1108.04	1208.82	10.8688	10.7101	1.32833	13.4779	357.405	360.765	88888.0	339.581	208.937	-100.65	466.296	289.195
.709763	886.892	1107.41	1208.82	10.8455	10.7101	1.32833	13.4779	392.246	405.646	88888.0	375.637	230.803	-118.36	514.747	330.945
.714883	886.573	1106.15	1208.82	10.8455	10.7101	1.32833	13.4461	421.882	443.530	88888.0	408.173	248.327	-130.98	556.130	370.411
.720003	885.776	1104.69	1208.82	10.8688	10.7212	1.32833	13.4461	445.807	476.729	88888.0	437.187	266.001	-142.47	588.725	406.341
.725123	884.500	1104.69	1208.82	10.8688	10.7198	1.32833	13.4461	466.859	502.040	88888.0	462.720	279.218	-154.25	613.618	438.711
.730243	884.500	1104.69	1208.82	10.8688	10.7253	1.32833	13.4405	483.556	523.956	88888.0	487.024	292.796	-163.49	634.260	468.669
.735363	884.500	1104.69	1208.82	10.8688	10.7322	1.32946	13.4368	496.766	541.431	88888.0	506.828	303.824	-167.90	651.357	495.154
.740483	884.341	1104.48	1208.82	10.8688	10.7309	1.32946	13.4312	508.847	555.594	88888.0	526.563	312.978	-176.46	662.244	518.224
.757012	884.341	1104.69	1208.82	10.8688	10.7419	1.32833	13.4293	527.468	578.410	88888.0	554.820	328.909	-185.22	683.579	554.024
.762132	884.500	1105.73	1208.82	10.8688	10.7419	1.32719	13.4237	535.119	590.332	88888.0	570.194	335.395	-190.08	690.547	571.170
.767252	886.573	1106.15	1208.82	10.8797	10.7502	1.32719	13.4293	543.851	600.072	88888.0	584.314	340.049	-195.01	698.847	588.004
.772372	887.052	1108.04	1208.82	10.8797	10.7530	1.32606	13.4443	551.346	609.801	88888.0	597.323	346.957	-198.33	705.135	602.094
.777492	889.762	1108.04	1208.82	10.8688	10.7530	1.32606	13.4461	559.240	619.517	88888.0	610.311	351.326	-203.28	710.484	613.996
.782612	889.762	1111.60	1208.82	10.8797	10.7544	1.32493	13.4461	565.630	629.223	88888.0	622.199	355.975	-206.68	716.898	625.881
.787732	889.762	1111.60	1208.82	10.9015	10.7779	1.32493	13.4461	573.236	637.841	88888.0	632.452	359.215	-210.12	724.510	635.593
.792852	889.762	1108.04	1208.82	10.8906	10.7779	1.32379	13.4779	579.613	645.375	88888.0	643.770	362.594	-216.22	726.513	644.216
.797972	889.762	1108.04	1208.82	10.9125	10.7779	1.32379	13.4779	586.256	652.902	88888.0	654.536	365.972	-217.11	733.051	652.832
.803092	889.762	1108.04	1208.82	10.9125	10.7779	1.32124	13.4779	591.675	660.960	88888.0	665.289	369.349	-222.45	737.185	659.288
.808212	889.762	1106.99	1208.82	10.9234	10.7807	1.32096	13.4779	596.006	669.012	88888.0	674.957	371.459	-226.06	741.584	664.665
.813332	889.762	1107.83	1208.82	10.9234	10.7835	1.32039	13.4817	602.906	676.520	88888.0	683.542	374.553	-226.06	745.715	672.187
.829515	886.573	1104.69	1208.82	10.9330	10.7876	1.32039	13.4779	613.175	688.307	88888.0	699.618	379.471	-233.42	752.109	681.849
.834635	885.617	1104.48	1208.82	10.9330	10.7946	1.32039	13.4779	617.630	693.660	88888.0	707.112	380.595	-233.42	756.369	687.214
.839755	884.500	1103.01	1208.82	10.9562	10.7876	1.32096	13.4779	621.948	699.010	88888.0	714.600	383.825	-237.18	760.628	691.503
.844875	884.341	1103.01	1208.82	10.9562	10.7863	1.32266	13.4592	626.264	703.289	88888.0	721.015	385.089	-240.98	762.756	694.718
.849995	884.341	1104.48	1208.82	10.9330	10.7973	1.32379	13.4779	630.578	707.565	88888.0	726.357	387.334	-240.98	767.146	700.076
.855115	884.500	1104.69	1208.82	10.9330	10.7973	1.32493	13.4592	634.754	711.839	88888.0	733.831	389.434	-245.81	769.140	703.288
.860235	885.617	1106.15	1208.82	10.9289	10.7863	1.32606	13.4779	638.121	715.044	88888.0	740.234	389.579	-248.75	771.267	706.500
.865355	885.776	1106.99	1208.82	10.9289	10.7918	1.32719	13.4611	641.352	719.316	88888.0	745.566	392.525	-248.75	775.654	709.444
.870475	886.573	1106.36	1208.82	10.9234	10.7973	1.32946	13.4779	645.793	722.518	88888.0	750.896	393.927	-252.72	777.248	712.921
.875595	886.892	1107.83	1208.82	10.9289	10.7973	1.33003	13.4779	647.676	725.186	88888.0	756.224	395.188	-256.76	778.710	716.130
.880715	886.892	1107.83	1208.82	10.9125	10.7973	1.33286	13.4779	650.904	728.920	88888.0	759.419	395.889	-256.76	781.898	719.338
.885835	887.052	1107.83	1208.82	10.9234	10.7987	1.33286	13.4779	654.399	729.987	88888.0	763.678	398.131	-261.38	784.953	721.476
.902437	887.052	1108.04	1208.82	10.9234	10.8084	1.33286	13.4779	657.490	736.384	88888.0	769.532	400.932	-262.94	788.272	725.751
.907557	889.762	1108.04	1208.82	10.9125	10.7987	1.33173	13.4779	660.714	740.647	88888.0	774.319	401.912	-262.94	790.396	728.956
.912677	889.762	1108.04	1208.82	10.9125	10.7987	1.33003	13.4779	663.937	742.511	88888.0	777.510	403.032	-267.15	792.652	730.024
.917797	889.762	1111.60	1208.82	10.9125	10.7987	1.32833	13.4779	667.024	747.038	88888.0	780.700	404.151	-267.15	794.643	733.227
.922917	889.762	1108.04	1208.82	10.9234	10.8084	1.32719	13.4779	671.587	750.233	88888.0	784.951	405.271	-267.15	796.766	733.227
.928037	889.762	1108.04	1208.82	10.9234	10.7987	1.32493	13.4461	673.465	753.426	88888.0	789.201	406.390	-271.43	797.827	734.295
.933157	889.762	1108.04	1208.82	10.9234	10.7973	1.32379	13.4461	675.745	755.554	88888.0	792.388	407.509	-271.43	801.143	737.497
.938277	889.762	1108.04	1208.82	10.9289	10.7987	1.32379	13.4461	677.890	758.746	88888.0	794.512	408.488	-273.61	801.541	737.497
.943397	889.762	1111.60	1208.82	10.9289	10.7973	1.32379	13.4461	681.777	760.874	88888.0	798.759	409.886	-273.61	802.072	738.564
.948517	887.052	1108.04	1208.82	10.9289	10.7973	1.32379	13.4461	683.251	763.001	88888.0	801.944	411.983	-271.43	804.194	741.766
.953637	886.892	1108.04	1208.82	10.9330	10.8098	1.32606	13.4461	685.395	764.064	88888.0	803.005	411.983	-273.61	805.122	741.766
.958757	885.617	1107.83	1208.82	10.9234	10.7987	1.32833	13.4461	686.467	766.190	88888.0	806.189	413.101	-278.58	805.254	742.833



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER PARAMETER UNITS	PRCAO PSIA	PH20-J PSIA	PGH20T PSIA	WH20C-1 LB-W	WH20C-2 LB-W	WH20P-1 LB-W	WH20P-2 LB-W	TW-A3 DEG F	TW-A4 DEG F	TW-A5 DEG F	TW-A6 DEG F	TW-B4 DEG F	TW-B5 DEG F	TW-B6 DEG F	TW-C1 DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
.975278	884.341	1106.15	1208.82	10.9234	10.7987	1.33286	13.4461	689.012	767.253	88888.0	810.432	414.218	-280.26	807.376	746.032
.980398	884.341	1104.69	1208.82	10.9125	10.7987	1.33513	13.4779	690.618	767.785	88888.0	812.288	415.196	-282.53	807.376	747.099
.985518	884.341	1104.69	1208.82	10.9125	10.7987	1.33626	13.4779	690.752	768.051	88888.0	814.675	415.336	-280.26	810.027	749.231
.990638	884.341	1104.69	1208.82	10.9125	10.7987	1.33626	13.4779	692.493	770.442	88888.0	815.735	416.034	-282.53	810.557	750.298
.995758	884.500	1106.15	1208.82	10.9125	10.7987	1.33626	13.4779	692.894	771.505	88888.0	818.916	416.453	-282.53	811.618	751.364
1.000878	885.617	1106.15	1208.82	10.9015	10.7987	1.33513	13.4779	695.036	772.567	88888.0	818.916	418.826	-282.53	814.798	751.897
1.005998	886.892	1106.15	1208.82	10.9015	10.7987	1.33399	13.4461	697.846	774.692	88888.0	819.976	416.453	-282.53	815.858	751.897
1.011118	887.052	1106.36	1208.82	10.9125	10.7987	1.33286	13.4461	699.318	775.755	88888.0	823.156	418.826	-287.14	818.110	754.561
1.016238	887.052	1106.15	1208.82	10.8906	10.7973	1.33286	13.4461	701.458	776.286	88888.0	825.276	418.826	-284.82	820.098	754.561
1.021358	889.762	1107.41	1208.82	10.9015	10.7973	1.33286	13.4461	704.668	778.941	88888.0	825.276	418.826	-287.14	822.217	755.627
1.026478	889.762	1108.04	1208.82	10.9125	10.7987	1.33286	13.4461	706.673	780.003	88888.0	827.395	419.803	-289.48	822.217	756.692
1.031598	889.762	1108.04	1208.82	10.9125	10.7946	1.33399	13.4461	707.742	782.127	88888.0	828.454	420.780	-287.14	824.336	758.623
1.047745	889.762	1108.04	1208.82	10.9234	10.7918	1.33399	13.4461	709.881	784.250	88888.0	831.633	420.920	-291.85	823.276	758.623
1.052865	889.762	1111.60	1208.82	10.9316	10.7973	1.33513	13.4461	711.084	785.046	88888.0	832.692	421.896	-291.85	824.336	759.888
1.057985	887.052	1108.04	1209.13	10.9289	10.7946	1.33513	13.4461	712.019	788.496	88888.0	833.751	423.012	-291.85	826.587	760.421
1.063105	887.052	1107.83	1208.97	10.9330	10.7973	1.33626	13.4461	714.424	788.496	88888.0	835.870	423.151	-296.99	826.587	760.421
1.068225	886.892	1107.41	1208.82	10.9562	10.7918	1.33739	13.4461	714.424	790.618	88888.0	837.458	423.151	-296.99	826.984	763.083
1.073345	885.776	1106.36	1208.82	10.9562	10.7946	1.33739	13.4461	714.424	791.679	88888.0	837.855	424.128	-297.29	826.984	763.083
1.078465	885.617	1104.69	1208.82	10.9562	10.7946	1.33739	13.4461	715.359	793.270	88888.0	841.165	425.382	-297.91	826.984	763.083
1.083585	885.617	1104.69	1208.82	10.9562	10.7876	1.33513	13.4461	716.427	795.922	88888.0	842.223	425.243	-297.29	828.573	764.148
1.088705	885.617	1104.69	1208.82	10.9562	10.7918	1.33399	13.4461	717.362	796.983	88888.0	843.282	425.382	-297.91	829.632	764.148
1.093825	885.617	1104.69	1208.82	10.9562	10.7918	1.33286	13.4461	718.430	796.983	88888.0	844.341	426.497	-299.14	829.632	764.148
1.098945	885.617	1104.69	1208.82	10.9562	10.7863	1.33031	13.4461	718.564	799.104	88888.0	845.399	426.358	-299.14	831.618	765.213
1.104065	885.617	1104.69	1208.82	10.9562	10.7863	1.33003	13.4461	719.499	800.164	88888.0	845.929	426.358	-299.14	831.750	765.213
1.120593	885.776	1106.36	1208.82	10.9330	10.7876	1.32833	13.4461	720.567	801.224	88888.0	848.575	427.752	-299.14	832.809	766.277
1.125713	886.573	1107.83	1208.82	10.9562	10.7918	1.32719	13.4461	720.700	803.344	88888.0	848.575	427.752	-301.63	832.809	765.213
1.130833	886.254	1107.83	1208.82	10.9289	10.7863	1.32606	13.4461	722.969	804.404	88888.0	849.633	428.030	-301.63	832.809	766.277
1.135953	886.573	1107.41	1208.82	10.9234	10.7863	1.32606	13.4592	722.969	805.464	88888.0	850.692	428.588	-301.63	835.059	767.342
1.141073	886.892	1106.36	1208.82	10.9234	10.7863	1.32606	13.4779	723.236	806.524	88888.0	850.692	428.588	-301.63	835.059	767.342
1.146193	887.052	1106.36	1208.82	10.9234	10.7876	1.32606	13.4779	723.236	806.524	88888.0	851.750	428.588	-304.16	835.059	767.342
1.151313	887.052	1106.36	1208.82	10.9234	10.7863	1.32606	13.4779	723.770	807.584	88888.0	852.808	429.423	-301.63	835.853	767.342
1.156433	889.762	1106.36	1208.82	10.9289	10.7918	1.32493	13.4461	724.838	807.584	88888.0	852.808	429.423	-304.16	835.324	767.342
1.161553	889.762	1106.36	1208.82	10.9234	10.7946	1.32493	13.4461	724.971	808.644	88888.0	852.808	429.702	-304.16	835.059	767.342
1.166673	889.762	1106.36	1208.82	10.9234	10.7946	1.32493	13.4461	724.971	808.644	88888.0	853.866	429.841	-301.63	835.986	767.342
1.171793	889.762	1106.15	1208.82	10.9289	10.7876	1.32493	13.4461	726.039	809.703	88888.0	853.866	429.841	-304.16	835.589	767.342
1.176913	889.762	1104.69	1208.82	10.9289	10.7863	1.32606	13.4461	726.706	809.703	88888.0	854.660	429.841	-304.16	835.853	768.406
1.193528	887.052	1104.06	1208.82	10.9562	10.7973	1.32833	13.4461	726.973	811.822	88888.0	857.041	430.955	-304.16	837.044	768.406
1.198648	886.892	1103.01	1208.82	10.9289	10.7876	1.33003	13.4461	726.973	812.881	88888.0	857.041	431.652	-306.73	837.044	769.205
1.203768	886.254	1101.33	1208.82	10.9289	10.7863	1.33286	13.4461	726.706	812.881	88888.0	858.099	430.955	-304.16	840.220	771.599
1.208888	886.892	1101.33	1208.82	10.9289	10.7876	1.33399	13.4779	726.973	812.881	88888.0	859.157	431.373	-309.33	840.220	771.599
1.214008	886.892	1101.33	1208.82	10.9289	10.7876	1.33513	13.4779	727.106	811.822	88888.0	861.273	431.652	-309.33	840.220	772.663
1.219128	885.776	1102.80	1208.82	10.9289	10.7863	1.33739	13.4779	727.106	810.233	88888.0	861.273	430.955	-306.73	841.146	773.727
1.224248	884.500	1103.01	1208.82	10.9289	10.7876	1.33739	13.4779	728.174	810.233	88888.0	861.273	430.955	-309.33	840.220	772.663
1.229368	884.341	1102.80	1208.82	10.9289	10.7918	1.33739	13.4779	728.841	809.703	88888.0	861.273	431.930	-309.33	840.220	773.727
1.234488	884.341	1103.01	1208.82	10.9316	10.7946	1.33739	13.4461	729.241	810.233	88888.0	862.331	432.069	-309.33	841.146	773.727
1.239608	884.500	1104.06	1208.82	10.9330	10.7973	1.33739	13.4461	731.508	810.233	88888.0	862.331	431.930	-311.97	840.220	773.727
1.244728	885.776	1104.69	1208.82	10.9330	10.7973	1.33739	13.4461	731.775	812.881	88888.0	862.859	430.955	-309.33	841.279	773.727
1.249848	886.892	1105.73	1208.82	10.9330	10.7876	1.33739	13.4461	732.442	813.941	88888.0	863.256	432.069	-309.33	844.454	774.791
1.265986	886.892	1106.36	1208.82	10.9562	10.7918	1.33739	13.4461	733.375	816.059	88888.0	865.504	432.069	-309.33	844.454	773.727

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PRCAO	PGH2OT	WH20C-2	WH20P-2	TW-A4	TW-A6	TW-B5	TW-C1
PARAMETER	PH20-J	WH20C-1	WH20P-1	TW-A3	TW-A5	TW-B4	TW-B6	
UNITS	PSIA	PSIA	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205
1.271106	886.573	1107.41	1208.82	10.9316	10.7863	1.33739	13.4461	733.508
1.276226	885.776	1106.36	1208.82	10.9289	10.7807	1.33626	13.4461	735.642
1.281346	884.500	1106.15	1208.82	10.9289	10.7835	1.33513	13.4461	736.575
1.286466	884.500	1104.69	1208.82	10.9289	10.7779	1.33513	13.4461	736.708
1.291586	884.500	1104.48	1208.82	10.9289	10.7779	1.33513	13.4461	736.708
1.296706	885.776	1104.48	1208.82	10.9234	10.7863	1.33513	13.4461	736.708
1.301826	887.052	1104.48	1208.82	10.9234	10.7835	1.33626	13.4461	737.775
1.306946	889.762	1104.69	1208.82	10.9234	10.7863	1.33739	13.4461	737.775
1.312066	890.400	1106.15	1208.82	10.9234	10.7863	1.33853	13.4461	740.040
1.317186	890.879	1106.15	1208.82	10.9234	10.7863	1.33909	13.4461	740.040
1.322306	890.879	1106.36	1208.82	10.9125	10.7863	1.34193	13.4461	740.307
1.338792	890.400	1106.36	1208.82	10.9125	10.7876	1.34193	13.4461	740.040
1.343912	889.762	1106.15	1208.82	10.9125	10.7946	1.33938	13.4461	740.307
1.349032	889.762	1106.15	1208.82	10.9125	10.7946	1.33853	13.4461	740.040
1.354152	887.052	1106.15	1208.82	10.9125	10.7946	1.33853	13.4461	740.040
1.359272	886.892	1106.15	1208.82	10.9125	10.7946	1.33853	13.4461	740.040
1.364392	887.052	1106.36	1208.82	10.9234	10.7973	1.33739	13.4779	740.040
1.369512	887.052	1106.99	1208.82	10.9234	10.7973	1.33626	13.4611	740.040
1.374632	889.762	1107.83	1208.82	10.9234	10.7973	1.33513	13.4779	740.040
1.379752	889.762	1108.04	1208.82	10.9234	10.7946	1.33513	13.4779	740.040
1.384872	889.762	1108.04	1208.82	10.9289	10.7918	1.33399	13.4779	740.040
1.389992	889.762	1108.04	1208.82	10.9289	10.7918	1.33286	13.4779	740.040
1.395112	889.762	1108.04	1208.82	10.9289	10.7918	1.33031	13.4779	740.840
1.411716	885.617	1107.41	1208.82	10.9289	10.7946	1.32833	13.4779	741.639
1.416836	884.500	1106.36	1208.82	10.9289	10.7946	1.32833	13.4779	741.906
1.421956	884.341	1106.36	1208.82	10.9289	10.7946	1.32833	13.4779	741.906
1.427076	883.703	1106.15	1208.82	10.9289	10.7876	1.32833	13.4779	740.840
1.432196	884.341	1106.15	1208.82	10.9234	10.7973	1.32833	13.4779	740.973
1.437316	884.500	1106.36	1208.82	10.9234	10.7973	1.32833	13.4461	740.973
1.442436	885.617	1106.36	1208.82	10.9234	10.7973	1.32946	13.4461	741.639
1.447556	886.573	1106.99	1208.82	10.9234	10.7973	1.33003	13.4461	741.906
1.452676	885.776	1106.36	1208.82	10.9234	10.7973	1.33286	13.4461	742.039
1.457796	886.573	1106.36	1208.82	10.9234	10.7973	1.33286	13.4461	742.039
1.462916	885.776	1106.36	1208.82	10.9234	10.7973	1.33286	13.4461	743.105
1.468036	885.776	1106.36	1208.82	10.9234	10.7973	1.33003	13.4461	744.171
1.484191	884.500	1104.69	1208.20	10.9234	10.7973	1.32946	13.4611	745.902
1.489311	884.341	1104.48	1208.82	10.9234	10.7946	1.32833	13.4461	748.566
1.494431	883.225	1104.48	1208.82	10.9289	10.7863	1.32606	13.4592	748.566
1.499551	884.341	1104.48	1208.82	10.9289	10.7863	1.32606	13.4779	748.566
1.504671	884.500	1104.69	1208.82	10.9289	10.7863	1.32493	13.4461	748.566
1.509791	885.617	1106.15	1208.82	10.9316	10.7863	1.32493	13.4461	748.566
1.514911	885.776	1106.36	1208.82	10.9562	10.7863	1.32493	13.4592	748.832
1.520031	884.500	1106.15	1208.82	10.9562	10.7863	1.32493	13.4779	749.364
1.525151	884.341	1105.73	1208.82	10.9562	10.7863	1.32493	13.4611	749.364
1.530271	883.703	1104.69	1208.82	10.9562	10.7876	1.32379	13.4779	749.498
1.535391	883.703	1104.69	1208.82	10.9671	10.7918	1.32379	13.4779	750.563
1.540511	883.225	1104.69	1208.82	10.9671	10.7918	1.32379	13.4779	750.563
1.556647	884.022	1104.69	1208.82	10.9671	10.7973	1.32493	13.4611	751.628
1.561767	884.500	1106.15	1208.82	10.9562	10.7973	1.32719	13.4461	752.560

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PRCAO	PGH20T		WH20C-2		WH20P-2		TW-A4	TW-A5	TW-A6	TW-B4	TW-B5	TW-B6	TW-C1
PARAMETER	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177
1.566887	884.500	1106.36	1208.82	10.9562	10.7973	1.32833	13.4779	752.560	829.822	88888.0	882.423	438.609	-328.82	852.257
1.572007	885.617	1107.83	1208.82	10.9562	10.7987	1.32946	13.4779	752.560	830.880	88888.0	883.480	438.609	-325.88	852.918
1.577127	886.892	1108.04	1208.82	10.9562	10.7946	1.32946	13.4779	751.628	830.880	88888.0	883.480	438.748	-328.82	853.844
1.582247	887.052	1109.51	1208.82	10.9562	10.7973	1.33173	13.4779	750.563	830.880	88888.0	884.537	438.748	-328.82	853.976
1.587367	889.762	1111.60	1208.82	10.9562	10.7987	1.33286	13.4779	750.563	831.409	88888.0	884.537	438.748	-328.82	853.976
1.592487	889.762	1111.60	1208.82	10.9562	10.7973	1.33513	13.4779	751.628	831.409	88888.0	885.594	438.609	-331.82	852.918
1.597607	889.762	1111.60	1208.82	10.9562	10.7987	1.33739	13.4891	752.560	830.880	88888.0	885.594	438.748	-328.82	853.844
1.602727	889.762	1108.04	1208.82	10.9562	10.7987	1.33739	13.4891	753.624	830.880	88888.0	885.594	438.748	-328.82	853.976
1.607847	889.762	1106.36	1208.82	10.9562	10.7973	1.33853	13.4779	754.689	830.880	88888.0	886.651	439.860	-334.88	852.918
1.612967	886.892	1106.15	1208.82	10.9671	10.7973	1.33909	13.4779	754.822	830.880	88888.0	885.594	439.721	-331.82	852.918
1.629484	884.500	1104.48	1208.82	10.9671	10.7973	1.33853	13.4461	757.084	830.880	88888.0	885.594	439.860	-331.82	852.918
1.634604	885.617	1104.48	1208.82	10.9671	10.7973	1.33853	13.4461	757.350	830.880	88888.0	885.594	439.860	-331.82	853.976
1.639724	885.776	1104.48	1208.82	10.9780	10.7973	1.33739	13.4461	758.016	830.880	88888.0	885.594	440.833	-331.82	855.034
1.644844	886.892	1104.69	1208.82	10.9780	10.7876	1.33739	13.4461	758.681	829.822	88888.0	885.594	440.833	-331.82	853.976
1.649964	887.052	1104.69	1208.82	10.9780	10.7918	1.33739	13.4461	759.080	829.822	88888.0	885.594	440.833	-331.82	854.901
1.655084	887.052	1104.69	1208.82	10.9780	10.7876	1.33626	13.4443	759.080	829.822	88888.0	885.594	440.972	-328.82	856.091
1.660204	889.762	1106.15	1208.82	10.9671	10.7863	1.33626	13.4443	759.080	828.764	88888.0	884.537	440.972	-331.82	855.034
1.665324	889.762	1107.83	1208.82	10.9671	10.7863	1.33513	13.4312	759.080	829.822	88888.0	884.537	440.833	-328.82	855.959
1.670444	890.879	1108.04	1208.82	10.9671	10.7863	1.33513	13.4387	759.080	829.822	88888.0	884.537	440.972	-328.82	855.034
1.675564	890.879	1111.60	1208.82	10.9562	10.7863	1.33513	13.4443	759.080	829.822	88888.0	884.537	440.833	-331.82	853.844
1.680684	891.357	1111.60	1208.82	10.9562	10.7876	1.33626	13.4461	759.080	829.822	88888.0	883.480	440.833	-328.82	853.976
1.685804	891.676	1111.60	1208.82	10.9562	10.7946	1.33739	13.4461	759.080	830.880	88888.0	883.480	440.833	-328.82	853.976
1.702747	890.719	1111.60	1208.82	10.9562	10.7973	1.33853	13.4461	758.947	830.880	88888.0	884.537	440.833	-325.88	853.976
1.707867	890.400	1111.60	1208.82	10.9562	10.7987	1.33853	13.4611	758.947	832.997	88888.0	884.537	440.972	-328.82	855.034
1.712987	889.762	1111.60	1208.82	10.9562	10.7987	1.33853	13.4779	758.947	832.997	88888.0	886.651	440.972	-328.82	853.976
1.718107	889.762	1108.04	1208.82	10.9562	10.7987	1.33853	13.4779	758.947	831.938	88888.0	886.651	440.833	-328.82	855.034
1.723227	889.762	1108.04	1208.82	10.9562	10.8084	1.33739	13.4817	758.947	831.938	88888.0	886.651	440.833	-325.88	853.976
1.728347	889.762	1108.04	1208.82	10.9330	10.8098	1.33513	13.4779	758.947	830.880	88888.0	886.651	440.555	-328.82	853.976
1.733467	889.762	1109.51	1208.82	10.9316	10.8084	1.33286	13.4779	758.947	830.880	88888.0	885.594	440.277	-325.88	855.034
1.738587	889.762	1111.60	1208.82	10.9289	10.7987	1.33286	13.4779	759.080	830.880	88888.0	885.594	440.555	-328.82	853.976
1.743707	889.762	1111.60	1208.82	10.9289	10.7987	1.33173	13.4779	759.080	830.880	88888.0	885.594	440.833	-328.82	853.976
1.748827	889.762	1111.60	1208.82	10.9289	10.7987	1.33286	13.4779	760.144	830.880	88888.0	884.537	440.972	-325.88	853.976
1.753947	889.762	1109.51	1208.82	10.9289	10.7987	1.33286	13.4779	760.809	830.880	88888.0	883.480	440.833	-325.88	852.918
1.759067	889.762	1108.04	1208.82	10.9289	10.7987	1.33286	13.4779	761.075	829.822	88888.0	882.423	440.972	-328.82	852.389
1.789557	887.052	1107.83	1208.20	10.9562	10.7987	1.34193	13.4461	762.272	827.176	88888.0	884.537	442.084	-325.88	853.844
1.810456	884.341	1104.69	1208.20	10.9562	10.7987	1.34193	13.4461	762.937	829.822	88888.0	884.537	442.084	-331.82	853.976
1.828239	881.152	1101.33	1208.82	10.9289	10.7973	1.33626	13.4779	762.272	831.938	88888.0	884.537	443.056	-331.82	855.034
1.846342	879.876	1099.65	1208.20	10.9234	10.7973	1.33626	13.4611	763.336	835.112	88888.0	883.480	442.084	-334.88	855.959
1.864088	881.949	1103.01	1208.82	10.9125	10.7876	1.33626	13.4461	766.395	835.112	88888.0	885.594	442.779	-334.88	857.149
1.882182	883.225	1104.69	1208.20	10.9125	10.7863	1.33513	13.4293	766.528	835.112	88888.0	888.237	443.195	-334.88	858.075
1.900846	885.617	1106.15	1208.82	10.9289	10.7779	1.33286	13.4162	766.528	835.642	88888.0	888.633	443.195	-334.88	858.075
1.918601	886.892	1107.41	1208.82	10.9330	10.7863	1.32833	13.4293	767.458	837.228	88888.0	890.879	444.168	-331.82	858.207
1.936729	885.776	1106.36	1208.82	10.9289	10.7835	1.32606	13.4312	767.458	838.286	88888.0	892.993	445.557	-334.88	860.454
1.954481	881.949	1102.80	1208.82	10.9330	10.7973	1.32946	13.4443	765.597	835.642	88888.0	894.050	443.195	-334.88	861.908
1.972577	881.790	1103.01	1208.20	10.9289	10.7876	1.32833	13.4443	765.597	835.906	88888.0	895.107	443.195	-334.88	861.247
1.991189	884.341	1106.36	1208.20	10.9125	10.7863	1.32493	13.4443	765.863	837.228	88888.0	895.107	443.195	-338.01	860.454
2.016634	889.762	1107.83	1208.20	10.9289	10.7863	1.32124	13.4779	766.927	838.286	88888.0	896.164	444.168	-341.63	858.207
2.037007	885.617	1106.15	1208.20	10.9562	10.7863	1.32096	13.4592	765.863	839.344	88888.0	895.107	443.195	-334.88	860.454
2.054782	887.052	1106.36	1208.20	10.9780	10.7973	1.32606	13.4461	767.458	839.344	88888.0	892.993	443.195	-334.88	858.207

TEST NUMBER T/R    2KB6-704-111    CALIBRATION PERFORMED 05-07-79 15:58:13    CAL DECK FILE NAME 'TR704A'

PARAMETER	PRCAO		PGH20T		WH20C-2		WH20P-2		TW-A4		TW-A6		TW-B5		TW-C1
PARAMETER		PH20-J		WH20C-1		WH20P-1		TW-A3		TW-A5		TW-B4		TW-B6	
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
2.072884	885.776	1108.04	1208.20	10.9562	10.7876	1.33286	13.4461	769.718	838.286	88888.0	892.993	443.195	-334.88	860.454	785.425
2.091116	885.776	1108.04	1208.20	10.9562	10.7973	1.33739	13.4461	771.844	835.112	88888.0	892.993	445.557	-334.88	860.454	785.425
2.109302	886.892	1107.83	1208.20	10.9452	10.7987	1.33399	13.4461	771.844	834.055	88888.0	892.993	445.557	-341.63	857.149	785.425
2.127443	886.892	1106.15	1208.20	10.9330	10.7987	1.33003	13.4443	771.844	835.112	88888.0	890.879	445.557	-342.86	857.149	785.425
2.145171	884.341	1104.48	1208.20	10.9234	10.7918	1.32946	13.4461	771.844	835.906	88888.0	890.879	445.557	-342.04	858.207	785.425
2.163297	884.500	1107.83	1208.20	10.9234	10.7863	1.33003	13.4443	771.844	839.344	88888.0	890.879	443.195	-342.86	857.149	784.362
2.181475	889.762	1111.60	1208.20	10.9562	10.7973	1.33286	13.4461	771.844	839.344	88888.0	890.879	445.557	-338.01	858.207	784.362
2.199663	889.762	1111.60	1208.20	10.9671	10.7987	1.32833	13.4779	771.711	840.401	88888.0	890.879	445.557	-334.88	857.546	785.425
2.217800	889.762	1111.60	1208.20	10.9562	10.7987	1.32606	13.4779	772.907	840.401	88888.0	891.936	445.557	-334.88	857.149	785.425
2.243644	886.254	1106.36	1208.20	10.9248	10.8098	1.32946	13.4817	774.103	839.344	88888.0	890.879	445.557	-334.88	858.207	784.362
2.264253	885.776	1104.69	1208.20	10.9125	10.7987	1.32833	13.4779	774.369	839.344	88888.0	890.879	445.557	-341.63	857.149	784.362
2.282308	884.022	1104.06	1208.20	10.9125	10.7987	1.32124	13.4779	774.103	840.401	88888.0	892.993	445.557	-341.63	857.149	784.362
2.300947	881.949	1103.01	1208.20	10.9125	10.7987	1.31926	13.4779	775.033	842.517	88888.0	892.993	445.557	-341.63	858.207	784.362
2.318690	883.225	1101.33	1208.82	10.9015	10.7973	1.32039	13.4779	775.033	843.574	88888.0	895.107	445.557	-342.45	860.719	785.425
2.336430	884.500	1104.69	1208.82	10.9125	10.7973	1.32493	13.4461	774.901	843.574	88888.0	896.164	446.112	-341.63	860.851	785.425
2.354552	887.052	1107.83	1208.20	10.9015	10.7876	1.32833	13.4461	774.103	843.574	88888.0	896.692	445.557	-341.63	860.454	785.425
2.372680	887.052	1111.60	1208.20	10.9125	10.7973	1.32946	13.4611	776.096	842.517	88888.0	896.692	445.557	-334.88	860.454	785.425
2.391274	885.617	1108.04	1208.20	10.9138	10.7987	1.32946	13.4611	776.096	842.517	88888.0	896.164	445.557	-341.63	860.454	785.42

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PRCAO	PGH20T		WH20C-2		WH20P-2		TW-A3	TW-A4	TW-A5	TW-A6	TW-B4	TW-B5	TW-B6	TW-C1
PARAMETER	PSIA	PH20-J	PSIA	WH20C-1	LB-W	WH20P-1	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
3.001785	886.573	1106.36	1208.20	10.9562	10.7946	1.32606	13.4461	780.346	852.561	88888.0	899.334	445.557	-334.88	861.379	787.551
3.020426	887.052	1107.41	1208.20	10.9562	10.7973	1.32719	13.4387	782.604	852.561	88888.0	899.334	445.834	-334.88	862.437	786.355
3.038161	890.081	1111.60	1208.20	10.9562	10.7987	1.32833	13.4443	782.604	854.146	88888.0	899.334	445.557	-334.88	862.437	786.089
3.056269	890.719	1111.60	1208.20	10.9562	10.7987	1.32833	13.4461	782.604	852.032	88888.0	898.277	445.557	-331.82	861.247	785.957
3.074418	887.052	1107.83	1208.20	10.9234	10.7987	1.32719	13.4461	783.401	850.975	88888.0	896.692	445.557	-331.82	861.247	785.957
3.092147	884.500	1104.48	1208.20	10.9125	10.7987	1.32946	13.4779	784.197	852.032	88888.0	895.107	445.973	-331.82	861.379	785.957
3.110785	881.949	1103.01	1208.20	10.9015	10.7918	1.33739	13.4461	783.533	855.203	88888.0	896.164	446.390	-334.88	861.379	786.222
3.128542	884.341	1106.15	1208.20	10.8906	10.7863	1.33853	13.4312	784.463	855.203	88888.0	896.824	446.529	-338.01	860.719	786.222
3.156510	889.762	1106.36	1208.20	10.9234	10.7987	1.33853	13.4293	784.595	855.203	88888.0	896.164	446.945	-331.82	860.851	786.355
3.175442	889.762	1107.83	1208.20	10.9302	10.8098	1.33909	13.4312	784.595	856.260	88888.0	896.164	446.529	-334.88	860.454	786.355
3.193586	887.052	1108.04	1208.20	10.9452	10.8098	1.33626	13.4312	784.595	857.317	88888.0	896.824	446.529	-342.04	860.454	786.089
3.211780	884.500	1106.36	1208.20	10.9330	10.8195	1.33399	13.4312	786.719	858.374	88888.0	899.334	446.390	-342.86	860.719	786.089
3.230468	885.776	1106.15	1208.20	10.9234	10.8195	1.33399	13.4443	788.710	857.317	88888.0	899.334	446.112	-342.86	860.454	786.355
3.248198	885.776	1104.48	1208.20	10.9125	10.8098	1.33513	13.4461	788.445	859.430	88888.0	901.448	446.529	-342.86	860.454	787.551
3.266318	886.892	1106.15	1208.20	10.9125	10.7987	1.33286	13.4461	788.710	860.487	88888.0	901.448	446.529	-334.88	860.719	788.614
3.284462	885.776	1106.36	1208.20	10.9125	10.7973	1.32946	13.4779	786.586	860.487	88888.0	901.448	446.529	-334.88	860.454	788.614
3.302193	886.892	1107.83	1208.20	10.9125	10.7918	1.32946	13.4779	784.595	856.260	88888.0	900.391	446.529	-334.88	860.454	788.614
3.320845	885.617	1104.69	1208.20	10.9125	10.7946	1.32946	13.4779	784.595	856.260	88888.0	896.692	446.390	-334.49	860.454	788.614
3.338579	884.500	1104.48	1208.20	10.9234	10.7973	1.32606	13.4611	784.595	858.374	88888.0	896.692	446.390	-334.88	861.247	788.614
3.356706	885.776	1104.48	1208.20	10.9289	10.7973	1.32266	13.4443	783.533	859.430	88888.0	898.277	445.834	-334.88	862.305	788.614
3.382152	889.762	1107.83	1208.20	10.9330	10.7987	1.32039	13.4461	783.932	857.317	88888.0	896.692	445.557	-334.88	860.983	786.222
3.403526	887.052	1106.15	1208.20	10.9125	10.7863	1.32379	13.4592	784.463	859.430	88888.0	896.692	445.557	-334.88	861.379	786.089
3.421739	885.776	1103.01	1208.20	10.9125	10.7918	1.32493	13.4461	783.533	860.487	88888.0	896.824	446.112	-334.88	863.494	787.551
3.439947	880.514	1099.65	1208.20	10.8906	10.7918	1.32493	13.4368	784.595	860.487	88888.0	899.334	445.834	-334.88	863.494	788.614
3.457685	879.876	1101.12	1208.20	10.8797	10.7807	1.32379	13.4312	784.463	859.430	88888.0	900.391	446.390	-334.88	863.494	788.614
3.475795	881.949	1103.01	1208.20	10.8906	10.7863	1.32493	13.4256	784.463	858.374	88888.0	901.448	445.557	-334.88	864.420	788.614
3.493927	884.022	1104.69	1208.20	10.9125	10.7863	1.32606	13.4312	783.533	858.374	88888.0	899.334	445.557	-334.88	864.420	787.551
3.512101	885.617	1104.48	1208.20	10.9125	10.7835	1.32493	13.4312	784.463	858.374	88888.0	900.391	445.557	-334.88	862.437	785.957
3.530814	883.225	1101.33	1208.20	10.9234	10.7835	1.32493	13.4293	783.401	859.430	88888.0	901.448	445.557	-334.88	862.040	785.425
3.548549	884.341	1104.69	1208.20	10.9234	10.7863	1.32606	13.4405	782.604	860.487	88888.0	902.505	446.390	-331.82	862.437	785.425
3.566692	885.617	1104.69	1208.20	10.9125	10.7835	1.32833	13.4293	782.604	859.430	88888.0	900.391	445.834	-334.88	862.437	785.957
3.584847	884.022	1104.06	1208.20	10.9125	10.7863	1.32606	13.4312	783.533	859.430	88888.0	900.391	445.557	-334.88	862.437	786.222
3.610723	884.341	1103.01	1208.20	10.9452	10.7835	1.32379	13.4293	782.869	860.487	88888.0	900.391	444.307	-334.88	862.305	785.425
3.631319	884.500	1103.01	1208.20	10.9562	10.7863	1.32833	13.4312	782.604	861.016	88888.0	901.448	445.557	-331.82	861.379	785.957
3.649894	883.225	1099.65	1208.20	10.9234	10.7863	1.32946	13.4312	783.533	864.714	88888.0	899.334	445.557	-331.82	861.247	788.614
3.667634	885.776	1101.12	1208.20	10.9234	10.7835	1.32606	13.4312	783.533	864.714	88888.0	899.334	445.557	-328.82	860.454	788.614
3.685779	886.892	1102.80	1208.20	10.9330	10.7863	1.32379	13.4293	783.533	861.016	88888.0	899.334	445.557	-328.82	858.207	787.551
3.703510	887.052	1104.69	1208.20	10.9562	10.7807	1.32039	13.4312	784.463	860.487	88888.0	899.334	445.557	-328.82	860.454	787.551
3.722141	886.892	1104.69	1208.20	10.9562	10.7779	1.32096	13.4312	784.463	860.487	88888.0	899.334	445.695	-328.82	860.983	788.614
3.740813	887.052	1104.69	1208.20	10.9780	10.7876	1.32946	13.4443	783.533	863.657	88888.0	900.391	445.557	-334.88	861.379	788.614
3.758559	886.892	1104.69	1208.20	10.9671	10.7973	1.33399	13.4461	782.604	863.657	88888.0	901.448	445.557	-328.82	861.379	788.614
3.776683	887.052	1104.48	1208.20	10.9562	10.7973	1.32719	13.4443	782.604	863.657	88888.0	899.334	445.557	-328.82	860.719	786.222
3.794440	889.762	1106.15	1208.20	10.9562	10.7987	1.32039	13.4461	782.604	861.412	88888.0	899.334	445.557	-328.82	860.454	785.425
3.812557	889.762	1106.36	1208.20	10.9562	10.7987	1.32039	13.4461	785.657	861.016	88888.0	899.334	445.557	-331.82	860.719	785.425
3.838017	886.892	1104.69	1208.20	10.9562	10.7973	1.32096	13.4461	784.595	861.016	88888.0	901.448	445.557	-328.82	862.437	785.425
3.859489	885.617	1101.33	1208.20	10.9452	10.7946	1.32379	13.4611	783.401	861.016	88888.0	897.089	445.557	-328.82	860.719	784.362
3.877229	885.776	1104.06	1208.20	10.9234	10.7876	1.32606	13.4779	784.595	863.657	88888.0	899.334	445.557	-328.82	860.454	784.362
3.895369	884.500	1104.69	1208.20	10.9125	10.7835	1.32493	13.4779	784.595	863.657	88888.0	899.334	445.834	-328.82	860.719	785.425
3.913109	886.892	1108.04	1208.20	10.9289	10.7807	1.32493	13.4461	784.463	863.657	88888.0	897.089	445.557	-328.82	860.719	785.425



## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PRCAO	PGH20T	WH20C-2	WH20P-2	TW-A4	TW-A6	TW-B5	TW-C1
PARAMETER	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205
3.931703	886.892	1108.04	1208.20	10.9289	10.7863	1.32606	13.4779	783.401
3.949917	885.617	1106.15	1208.20	10.9330	10.7973	1.32833	13.4779	784.463
3.967657	881.949	1102.80	1208.20	10.9330	10.7973	1.32946	13.4779	784.595
3.985790	881.949	1103.01	1208.20	10.9316	10.7946	1.32833	13.4461	784.595
4.003538	884.341	1103.01	1208.20	10.9452	10.7918	1.32606	13.4443	784.595
4.022106	887.052	1104.48	1208.20	10.9562	10.7863	1.32606	13.4368	785.525
4.040752	887.052	1104.69	1208.20	10.9671	10.7876	1.32379	13.4312	786.586
4.066213	884.022	1102.80	1208.20	10.9452	10.7835	1.32039	13.4443	784.463
4.086657	883.055	1103.01	1208.20	10.9289	10.7835	1.32379	13.4443	784.463
4.104411	884.500	1106.15	1208.20	10.9330	10.7876	1.33003	13.4312	784.595
4.122515	887.052	1107.20	1208.20	10.9562	10.7946	1.32946	13.4461	784.595
4.141141	889.762	1109.51	1208.20	10.9780	10.7987	1.32719	13.4461	785.525
4.159371	890.081	1111.60	1208.20	10.9671	10.7987	1.32379	13.4461	785.525
4.177115	890.081	1108.04	1208.20	10.9562	10.8084	1.31926	13.4461	786.586
4.195247	887.052	1106.15	1208.20	10.9452	10.7987	1.31926	13.4461	786.719
4.212989	886.892	1106.15	1208.20	10.9234	10.7973	1.32379	13.4461	785.657
4.231559	884.500	1106.15	1208.20	10.9234	10.7987	1.32493	13.4461	783.533
4.249756	881.949	1104.69	1208.20	10.9125	10.7987	1.32379	13.4779	783.533
4.267490	881.949	1104.69	1208.20	10.9125	10.7973	1.32379	13.4779	784.595
4.293745	883.065	1106.15	1208.20	10.9289	10.7946	1.32606	13.4817	785.657
4.313249	883.065	1104.69	1208.20	10.9452	10.7863	1.33286	13.4611	784.595
4.331436	885.617	1107.83	1208.20	10.9562	10.7987	1.33513	13.4461	785.657
4.349629	886.892	1108.04	1208.20	10.9780	10.8084	1.33286	13.4443	784.595
4.367772	886.892	1108.04	1208.20	10.9562	10.8098	1.32833	13.4461	784.595
4.385513	883.225	1106.15	1208.20	10.9125	10.7987	1.32833	13.4461	786.586
4.403658	883.225	1104.69	1208.20	10.9015	10.7987	1.32606	13.4461	786.719
4.421816	884.341	1103.01	1208.20	10.8688	10.7973	1.32606	13.4461	784.595
4.440488	881.790	1101.33	1208.20	10.8688	10.7876	1.32833	13.4312	784.595
4.458213	879.557	1101.33	1208.20	10.8906	10.7835	1.33003	13.4162	785.525
4.476350	880.514	1104.48	1208.20	10.9015	10.7779	1.33286	13.4013	786.321
4.494097	880.514	1104.06	1208.20	10.9125	10.7807	1.32946	13.4144	785.657
4.519519	881.949	1104.48	1208.20	10.9316	10.7876	1.32833	13.4162	783.401
4.541388	881.790	1103.01	1208.20	10.9562	10.7863	1.32833	13.4312	782.604
4.559629	881.949	1103.01	1208.20	10.9330	10.7876	1.32833	13.4443	784.463
4.577366	886.892	1106.36	1208.20	10.9234	10.7835	1.32606	13.4461	784.595
4.595524	889.762	1111.60	1208.20	10.9289	10.7807	1.32493	13.4461	783.533
4.613668	886.892	1108.04	1208.20	10.9575	10.7987	1.32606	13.4461	783.135
4.631812	887.052	1107.83	1208.20	10.9671	10.7973	1.32833	13.4461	784.197
4.650477	885.617	1104.48	1208.20	10.9562	10.7946	1.32719	13.4443	783.401
4.668239	884.500	1104.69	1208.20	10.9562	10.7973	1.33003	13.4312	782.604
4.685987	884.500	1105.73	1208.20	10.9562	10.7973	1.32946	13.4461	782.604
4.704124	889.762	1107.41	1208.20	10.9289	10.7946	1.32833	13.4461	783.401
4.722231	890.081	1107.83	1208.20	10.9289	10.7973	1.33286	13.4592	786.586
4.750279	889.762	1106.15	1208.20	10.9562	10.8098	1.33031	13.4779	784.463
4.769606	887.052	1104.69	1208.20	10.9780	10.8195	1.33003	13.4461	782.869
4.787347	889.762	1105.31	1208.20	10.9780	10.8195	1.33003	13.4443	782.869
4.805486	887.052	1104.69	1208.20	10.9671	10.8195	1.32719	13.4461	784.595
4.823615	887.052	1104.48	1208.20	10.9780	10.8209	1.32124	13.4461	784.595
4.841759	889.762	1104.06	1208.20	10.9780	10.8195	1.32096	13.4461	784.595

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PRCAO	PGH20T		WH20C-2		WH20P-2		TW-A4		TW-A6		TW-B5		TW-B6		TW-C1	
PARAMETER	PSIA	PH20-J	PSIA	WH20C-1	LB-W	WH20P-1	LB-W	TW-A3	DEG F	TW-A5	DEG F	TW-B4	DEG F	TW-B6	DEG F	TW-C1	DEG F
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184		
4.860449	890.081	1104.69	1208.20	10.9780	10.8098	1.32266	13.4443	783.401	867.883	88888.0	901.448	445.557	-331.82	861.379	784.362		
4.878184	891.676	1107.83	1208.20	10.9671	10.8098	1.32493	13.4387	783.401	864.714	88888.0	901.448	445.557	-328.82	861.379	783.299		
4.896331	890.719	1107.83	1208.20	10.9780	10.8098	1.32946	13.4461	783.401	865.770	88888.0	901.448	445.557	-328.82	861.379	784.362		
4.914080	886.254	1106.15	1208.20	10.9780	10.8098	1.33003	13.4461	784.463	868.939	88888.0	903.562	445.557	-328.82	861.379	785.957		
4.932203	885.776	1104.69	1208.20	10.9999	10.8195	1.32833	13.4461	784.197	869.468	88888.0	903.562	445.557	-331.82	860.454	785.957		
4.950844	884.500	1103.01	1208.20	11.0108	10.8195	1.32719	13.4312	784.463	871.052	88888.0	902.505	445.834	-328.82	860.454	785.957		
4.976685	886.414	1101.33	1208.20	10.9999	10.8195	1.32493	13.4162	784.595	872.108	88888.0	901.448	445.557	-328.82	860.454	784.362		
4.996597	883.225	1101.12	1208.20	10.9562	10.7987	1.32124	13.4162	786.719	872.108	88888.0	903.562	446.529	-328.82	860.454	784.362		
5.014372	886.414	1104.69	1208.20	10.9302	10.7987	1.32039	13.4144	786.719	872.108	88888.0	902.505	445.834	-328.82	860.719	784.362		
5.032479	890.081	1108.04	1208.20	10.9330	10.7987	1.32379	13.4162	786.586	873.164	88888.0	902.505	445.834	-328.82	860.454	784.362		
5.051092	890.719	1111.60	1208.20	10.9562	10.8098	1.33045	13.4312	784.595	873.164	88888.0	901.448	445.557	-323.00	860.454	784.362		
5.069325	887.052	1106.15	1208.20	10.9671	10.8195	1.33399	13.4461	784.463	873.164	88888.0	901.448	445.557	-323.00	860.719	784.362		
5.087062	885.776	1103.85	1208.20	10.9562	10.8195	1.33739	13.4461	784.463	872.108	88888.0	901.448	445.557	-323.00	860.454	782.236		
5.105183	889.762	1104.69	1208.20	10.9562	10.8195	1.34193	13.4461	783.401	867.883	88888.0	899.334	445.557	-323.00	858.207	782.236		
5.123325	889.762	1106.36	1208.20	10.9452	10.7987	1.33513	13.4461	783.401	866.827	88888.0	899.334	445.557	-322.64	858.207	784.362		
5.141511	886.573	1104.69	1208.20	10.9330	10.7987	1.32833	13.4592	784.595	868.939	88888.0	901.448	445.557	-323.00	858.207	784.362		
5.159726	881.949	1102.80	1208.20	10.9302	10.7987	1.32379	13.4461	784.595	872.108	88888.0	903.562	445.834	-328.82	860.983	784.362		
5.177460	880.673	1101.33	1208.20	10.9289	10.7876	1.32493	13.4312	784.595	869.468	88888.0	901.448	445.557	-328.82	860.719	784.362		
5.203675	879.557	1101.12	1208.20	10.9452	10.7876	1.32606	13.4312	784.463	869.732	88888.0	899.334	445.557	-325.88	860.454	784.362		
5.223935	881.949	1104.69	1208.20	10.9562	10.7946	1.32833	13.4312	783.401	873.164	88888.0	899.334	445.557	-325.88	857.810	784.362		
5.241988	885.617	1104.48	1208.20	10.9452	10.7876	1.32833	13.4461	783.401	874.221	88888.0	897.089	445.557	-325.88	856.091	784.362		
5.260645	884.500	1104.48	1208.20	10.9289	10.7863	1.32833	13.4461	783.401	872.108	88888.0	896.956	445.557	-325.88	857.017	784.362		
5.278392	884.341	1106.15	1208.20	10.9316	10.7876	1.32833	13.4461	782.604	872.108	88888.0	899.334	445.557	-328.82	858.075	784.362		
5.296532	884.341	1104.48	1208.20	10.9289	10.7835	1.32606	13.4779	782.604	872.108	88888.0	901.448	443.195	-328.82	858.207	785.425		
5.314644	881.949	1104.48	1208.20	10.9125	10.7876	1.32124	13.4779	782.604	872.108	88888.0	901.448	445.557	-323.00	858.207	784.362		
5.332766	883.065	1104.69	1208.20	10.9234	10.7973	1.32379	13.4461	782.604	874.221	88888.0	901.448	445.557	-325.88	860.454	785.425		
5.351472	884.500	1106.36	1208.20	10.9234	10.7973	1.33173	13.4461	782.604	876.333	88888.0	901.448	445.557	-323.00	860.454	784.362		
5.369718	886.892	1107.83	1208.20	10.9452	10.7973	1.33853	13.4461	782.604	874.221	88888.0	899.334	445.557	-323.00	858.207	784.362		
5.387458	885.776	1107.41	1208.20	10.9234	10.7946	1.34306	13.4461	782.604	872.108	88888.0	899.334	445.557	-323.00	858.075	785.425		
5.405556	885.617	1104.48	1208.20	10.9125	10.7946	1.33739	13.4611	782.869	874.221	88888.0	901.448	445.557	-323.00	860.454	785.425		
5.431817	887.052	1104.69	1208.20	10.9138	10.7987	1.32606	13.4443	784.595	874.221	88888.0	901.448	445.557	-328.82	861.247	784.362		
5.453394	886.573	1107.83	1208.20	10.9234	10.7863	1.32833	13.4312	783.533	874.221	88888.0	901.448	445.557	-323.00	860.719	784.362		
5.471575	885.617	1108.04	1208.20	10.9316	10.7918	1.33399	13.4443	783.002	876.333	88888.0	899.466	445.834	-323.00	860.454	784.362		
5.489776	884.500	1106.15	1208.20	10.9562	10.7973	1.33513	13.4312	782.604	877.389	88888.0	899.334	443.195	-328.82	860.454	785.425		
5.507853	885.617	1104.48	1208.20	10.9452	10.7987	1.33513	13.4312	779.948	877.389	88888.0	899.334	445.557	-328.82	857.149	785.425		
5.525596	889.762	1106.36	1208.20	10.9234	10.7987	1.33513	13.4293	782.604	875.277	88888.0	899.334	445.557	-328.82	858.207	784.362		
5.543711	885.776	1107.83	1208.20	10.8906	10.7987	1.33626	13.4443	782.604	876.333	88888.0	899.334	445.557	-328.82	860.454	783.299		
5.560907	880.673	1104.48	1208.20	10.8906	10.7987	1.33003	13.4443	783.401	877.917	88888.0	899.334	445.557	-331.82	858.207	783.299		
5.580573	880.195	1101.12	1208.20	10.8906	10.7987	1.32833	13.4461	785.657	877.389	88888.0	901.448	445.557	-331.82	858.207	784.362		
5.598312	884.500	1104.69	1208.20	10.9125	10.7987	1.32606	13.4461	787.648	878.313	88888.0	901.448	445.557	-334.88	860.454	785.425		
5.616422	887.052	1108.04	1208.20	10.9234	10.7987	1.32606	13.4461	784.595	878.181	88888.0	900.391	446.390	-334.88	857.017	785.425		
5.634143	887.052	1108.04	1208.20	10.9330	10.7987	1.32833	13.4461	783.401	877.917	88888.0	897.089	445.834	-328.82	855.034	784.362		
5.660462	884.341	1107.83	1208.20	10.9330	10.7987	1.32833	13.4779	784.595	876.333	88888.0	897.089	445.557	-328.82	856.091	783.299		
5.681947	881.949	1106.36	1208.20	10.9234	10.7987	1.32833	13.4779	786.055	876.333	88888.0	899.334	445.557	-328.82	860.454	784.362		
5.700625	886.892	1107.83	1208.20	10.9125	10.7987	1.32719	13.4461	785.525	877.389	88888.0	900.391	445.557	-328.82	860.454	784.362		
5.718711	890.719	1111.60	1208.20	10.9125	10.7973	1.32833	13.4461	785.525	877.917	88888.0	899.334	445.557	-328.82	860.454	784.362		
5.737086	890.719	1108.04	1208.20	10.9289	10.7946	1.32946	13.4461	784.595	880.557	88888.0	899.334	445.557	-328.82	860.454	784.362		
5.755479	886.892	1106.15	1208.20	10.9452	10.7946	1.32946	13.4461	784.595	877.917	88888.0	901.448	445.557	-325.88	860.719	784.362		
5.773837	881.949	1104.06	1208.20	10.9562	10.7932	1.32266	13.4312	785.657	876.333	88888.0	901.448	445.557	-328.82	861.247	784.362		

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/K 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING I.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	PRCAO	PH20-J	PGH20T	WH20C-1	WH20C-2	WH20P-1	WH20P-2	TW-A3	TW-A4	TW-A5	TW-A6	TW-B4	TW-B5	TW-B6	TW-C1
PARAMETER	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
5.792159	884.022	1104.48	1208.20	10.9562	10.7876	1.31699	13.4461	809.000	891.116	88888.0	908.845	451.940	-362.49	880.408	800.298
5.811543	886.892	1108.04	1208.20	10.9562	10.7863	1.31813	13.4461	960.283	999.837	88888.0	964.322	503.829	88888.0	1037.81	900.890
5.830895	884.341	1107.41	1208.20	10.9562	10.7876	1.32379	13.4461	968.732	1040.86	88888.0	964.719	520.422	88888.0	1093.52	960.080
5.849737	883.065	1104.69	1208.20	10.9330	10.7973	1.32493	13.4461	911.576	995.615	88888.0	926.809	533.691	88888.0	1143.38	986.507
5.868085	881.949	1101.33	1208.20	10.9452	10.7987	1.32039	13.4779	838.656	952.336	88888.0	882.423	540.109	88888.0	1190.19	1002.26
5.893853	884.500	1104.48	1208.20	10.9234	10.7987	1.31926	13.4779	720.567	868.939	88888.0	789.201	510.554	88888.0	1042.95	898.776
5.914720	884.500	1105.73	1208.20	10.9234	10.7876	1.31926	13.4461	643.505	794.861	88888.0	713.531	469.800	-354.96	871.952	792.864
5.932979	884.500	1106.15	1208.20	10.9234	10.7807	1.32039	13.4461	596.006	740.647	88888.0	660.989	439.860	-301.63	772.198	733.227
5.951852	884.022	1106.15	1208.20	10.9234	10.7779	1.32039	13.4461	559.240	693.660	88888.0	620.039	415.336	-265.03	710.484	690.431
5.971185	883.703	1106.36	1208.20	10.9015	10.7544	1.32379	13.4461	526.375	655.052	88888.0	585.399	394.067	-239.07	667.616	649.467
5.990526	884.500	1106.15	1208.20	10.9015	10.7544	1.32379	13.4461	500.063	622.484	88888.0	553.866	376.099	-218.88	632.103	612.914
6.008939	884.500	1106.15	1208.20	10.8906	10.7530	1.32096	13.4312	480.386	595.745	88888.0	528.478	362.453	-202.01	604.157	579.320
6.027340	883.225	1106.15	1208.20	10.8906	10.7530	1.32039	13.4312	460.359	572.984	88888.0	505.730	349.071	-185.22	578.147	548.844
6.045729	880.514	1101.33	1208.20	10.8688	10.7322	1.31926	13.4312	444.974	550.150	88888.0	484.544	337.934	-172.54	554.087	521.512
6.064099	880.673	1101.12	1208.20	10.8688	10.7309	1.31699	13.4461	427.456	529.422	88888.0	466.594	326.088	-163.49	534.858	495.154
6.082433	885.617	1106.15	1208.20	10.8455	10.7322	1.32039	13.4461	412.533	510.816	88888.0	449.275	316.361	-154.25	517.214	473.092
6.101794	885.776	1109.51	1208.20	10.8360	10.7212	1.32606	13.4779	397.989	491.600	88888.0	433.848	306.217	-143.93	501.438	453.157
6.127932	885.776	1107.83	1208.20	10.8264	10.7212	1.32833	13.4779	382.428	469.001	88888.0	412.647	295.886	-136.69	481.898	428.686
6.147299	885.776	1107.83	1208.20	10.8251	10.7212	1.32946	13.4779	369.785	454.620	88888.0	399.215	287.747	-130.98	468.508	411.935
6.165618	884.341	1104.69	1208.20	10.8251	10.7212	1.32833	13.4611	359.798	438.948	88888.0	385.893	281.452	-125.33	457.439	399.619
6.183955	884.341	1104.69	1208.20	10.8360	10.7101	1.32606	13.4461	349.660	427.963	88888.0	375.637	275.732	-119.75	446.901	385.593
6.202334	884.022	1103.01	1208.20	10.8360	10.7101	1.32606	13.4461	341.347	415.700	88888.0	364.383	270.305	-114.22	438.011	374.913
6.221704	885.617	1104.69	1208.20	10.8360	10.7101	1.32379	13.4461	332.750	402.850	88888.0	353.115	264.615	-108.75	429.523	363.654
6.241070	883.225	1104.69	1208.20	10.8360	10.7101	1.32493	13.4443	323.730	393.334	88888.0	341.696	259.217	-104.69	420.044	352.383
6.260427	883.065	1106.15	1208.20	10.8688	10.7101	1.32606	13.4461	316.967	383.242	88888.0	333.940	254.385	-103.34	411.248	343.359
6.278866	888.168	1108.04	1208.20	10.8688	10.7059	1.32379	13.4461	310.629	374.258	88888.0	323.503	250.253	-99.307	403.977	334.331
6.297263	889.762	1107.83	1208.20	10.8688	10.6976	1.32493	13.4461	303.452	365.265	88888.0	317.017	245.992	-96.637	396.136	325.303
6.315629	890.081	1107.83	1208.20	10.8688	10.7087	1.33173	13.4461	296.641	357.388	88888.0	310.253	242.699	-92.653	389.407	318.533
6.334019	890.879	1108.04	1208.20	10.8360	10.7031	1.33286	13.4443	292.290	348.380	88888.0	302.367	239.547	-90.012	384.777	311.766
6.359755	890.081	1108.04	1208.20	10.8251	10.6976	1.32379	13.4312	284.168	339.366	88888.0	292.183	232.849	-85.418	375.930	300.498
6.379880	890.879	1108.04	1208.20	10.8251	10.6921	1.32379	13.4405	278.722	330.914	88888.0	285.455	230.803	-84.928	368.056	293.686
6.397965	893.908	1111.60	1208.20	10.8305	10.6893	1.32379	13.4461	274.403	324.715	88888.0	278.328	227.396	-80.857	365.946	286.672
6.416315	892.154	1111.60	1208.20	10.8360	10.6893	1.32379	13.4611	269.677	319.082	88888.0	274.286	224.129	-78.266	359.049	282.474
6.434697	890.879	1111.60	1208.20	10.8360	10.6893	1.32606	13.4779	264.269	312.324	88888.0	267.612	222.090	-75.684	354.542	275.773
6.453098	890.879	1108.04	1208.20	10.8251	10.6921	1.32833	13.4779	260.533	306.695	88888.0	263.175	217.609	-73.113	350.034	271.317
6.471958	890.081	1106.99	1208.20	10.8251	10.6921	1.32493	13.4461	256.666	301.071	88888.0	258.748	215.439	-71.831	345.525	266.871
6.491326	889.762	1108.04	1208.20	10.8251	10.6976	1.31926	13.4461	251.981	294.268	88888.0	251.987	214.219	-69.275	341.014	259.667
6.510713	889.762	1108.04	1208.20	10.8032	10.6921	1.31926	13.4461	247.856	289.782	88888.0	247.722	211.103	-68.000	336.362	255.798
6.529659	889.762	1106.36	1208.20	10.8032	10.6921	1.32266	13.4461	243.327	285.304	88888.0	242.779	208.937	-66.728	331.851	250.284
6.548023	889.762	1107.83	1208.20	10.8032	10.6893	1.32379	13.4779	240.040	280.835	88888.0	238.943	206.773	-64.824	327.339	246.983
6.566368	887.052	1106.15	1208.20	10.8251	10.6976	1.32379	13.4779	236.758	276.375	88888.0	236.754	204.745	-61.662	324.097	242.315
6.592486	887.052	1104.69	1208.20	10.8360	10.6893	1.32493	13.4461	232.389	269.702	88888.0	230.199	201.773	-59.142	319.586	238.205
6.613395	890.081	1104.69	1208.20	10.8360	10.6893	1.32606	13.4443	229.118	265.265	88888.0	225.567	199.207	-59.142	313.949	233.283
6.631764	890.081	1104.69	1208.20	10.8251	10.6893	1.32266	13.4461	225.851	261.944	88888.0	223.663	197.992	-56.631	311.836	230.553
6.651083	890.719	1107.83	1208.20	10.8251	10.6658	1.31926	13.4461	223.268	257.525	88888.0	220.401	196.103	-55.379	308.315	227.282
6.670454	889.762	1106.99	1208.20	10.8251	10.6658	1.32379	13.4461	221.638	253.115	88888.0	216.600	193.810	-52.881	304.937	224.014
6.688862	890.081	1105.73	1208.20	10.8251	10.6644	1.32719	13.4443	217.160	249.814	88888.0	214.972	192.732	-50.392	303.670	221.838
6.707196	890.719	1108.04	1208.20	10.8360	10.6658	1.32606	13.4461	214.991	246.518	88888.0	210.637	190.574	-49.150	299.248	218.578
6.725561	889.762	1111.60	1208.20	10.8360	10.6893	1.32039	13.4611	213.230	244.323	88888.0	207.389	189.361	-49.150	295.874	215.321



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B
PARAMETER	TW-C5	TW-D1	TW-D2	TW-D3	TW-D4	FCALA 31941A	
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201
-245676	59.9710	63.8302	63.7071	61.7181	60.9430	60.6216	61.2257
-227491	58.9864	63.8302	63.7071	61.7181	61.2243	60.6216	61.2257
-209285	60.1117	63.8302	63.7071	61.0152	61.3649	60.6216	61.2257
-200409	61.2363	61.5710	63.5665	60.1714	61.2243	61.7466	61.2257
-190053	60.5335	61.5710	63.5665	60.4527	60.2398	60.6216	61.2257
-184933	62.7819	61.5710	63.2855	60.1714	61.3649	60.6216	60.8041
-179813	60.1117	63.8302	63.7071	61.7181	61.2243	60.6216	61.3663
-174693	61.2363	61.5710	63.5665	60.4527	60.2398	60.6216	60.2418
-169573	62.2200	61.5710	63.2855	59.6087	60.2398	60.6216	60.8041
-164453	60.1117	63.8302	63.7071	61.7181	61.2243	60.6216	61.2257
-159333	61.2363	61.5710	63.5665	60.1714	60.2398	60.6216	60.2418
-154213	62.3605	61.5710	63.7071	60.4527	60.2398	60.6216	60.8041
-149093	60.1117	63.8302	63.7071	61.7181	61.3649	60.6216	61.2257
-143973	62.3605	61.5710	63.5665	60.1714	61.2243	59.3554	60.2418
-138853	62.2200	61.5710	63.5665	60.4527	60.2398	60.6216	60.2418
-133733	60.1117	63.8302	63.7071	61.7181	61.2243	60.6216	61.2257
-117050	62.3605	61.5710	63.5665	60.4527	60.2398	60.6216	60.8041
-111930	58.9864	63.8302	63.7071	60.4527	61.3649	61.7466	61.3663
-106810	61.2363	61.5710	63.2855	60.1714	61.3649	60.6216	60.2418
-101690	62.3605	61.5710	63.5665	60.4527	60.2398	60.6216	61.2257
-096570	60.1117	63.8302	63.7071	61.7181	61.3649	60.6216	61.3663
-091450	62.3605	61.5710	63.5665	60.1714	61.3649	60.6216	60.6635
-086330	62.2200	61.5710	63.5665	59.4680	60.2398	60.6216	61.2257
-081210	60.1117	63.8302	63.7071	60.7340	61.3649	61.7466	61.3663
-076090	62.2200	61.5710	63.5665	60.1714	61.2243	60.6216	61.2257
-070970	61.2363	61.5710	63.5665	60.4527	60.2398	61.7466	61.2257
-065850	58.9864	63.8302	63.7071	61.7181	61.2243	61.7466	61.3663
-060730	62.3605	61.5710	63.5665	60.4527	61.3649	60.6216	61.2257
-044232	58.9864	63.8302	63.7071	61.1558	61.2243	61.7466	61.3663
-039112	61.2363	61.5710	62.5827	60.4527	60.8024	60.6216	60.8041
-033992	61.2363	61.5710	63.7071	60.4527	60.2398	61.7466	61.2257
-028872	60.1117	63.8302	63.7071	61.7181	61.2243	61.7466	61.3663
-023752	62.2200	61.5710	63.5665	60.1714	61.2243	60.6216	60.2418
-018632	62.3605	63.8302	63.7071	59.4680	60.0991	61.7466	61.2257
-013512	58.9864	63.8302	63.7071	60.0308	61.2243	61.7466	61.3663
-008392	62.2200	61.5710	63.5665	60.0308	60.0991	60.6216	60.2418
-003272	61.2363	62.7009	63.7071	60.4527	60.2398	61.7466	61.2257
-001848	58.9864	63.8302	63.7071	61.7181	61.2243	61.7466	61.3663
006968	62.2200	61.5710	63.5665	60.1714	60.2398	60.6216	60.2418
012088	61.2363	62.7009	63.7071	60.0308	60.0991	59.3554	61.2257
028558	62.3605	61.5710	63.7071	59.6087	60.9430	60.6216	60.2418
033678	61.2363	62.7009	63.7071	60.4527	60.2398	61.7466	60.2418
038798	58.9864	63.8302	63.7071	60.0308	61.2243	61.7466	61.3663
043918	62.2200	61.5710	62.5827	60.1714	61.3649	60.6216	60.2418
049038	61.2363	62.7009	63.7071	60.7340	61.3649	61.7466	61.2257
054158	60.1117	63.8302	63.7071	60.0308	61.2243	61.7466	61.2257
059278	62.2200	61.5710	63.5665	60.0308	60.2398	60.6216	60.2418
064398	61.2363	62.7009	63.7071	60.1714	61.3649	61.7466	61.2257
069518	59.9710	63.8302	63.7071	60.0308	60.2398	61.7466	61.3663

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C6	TW-D2	TW-D4	FCALB 319418
PARAMETER	TW-C5	TW-D1	TW-D3	FCALA 31941A	
UNITS	DEG F	DEG F	DEG F	DEG F	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193
074638	62.3605	61.5710	63.5665	60.3121	60.2398
079758	61.0958	62.7009	63.7071	62.8423	61.2243
084878	60.1117	63.8302	63.7071	62.8423	61.2243
101516	61.2363	62.7009	63.7071	65.0889	62.0677
106636	58.9864	63.8302	63.7071	65.0889	62.3488
111756	62.2200	61.5710	63.5665	65.0889	62.4894
116876	61.0958	62.7009	63.7071	65.0889	62.3488
121996	58.9864	63.8302	63.7071	65.0889	62.4894
127116	62.3605	61.5710	62.5827	65.0889	62.4894
132236	60.8147	62.7009	63.7071	65.0889	62.4894
137356	60.1117	63.8302	63.7071	65.0889	62.4894
142476	62.2200	61.5710	63.5665	65.0889	62.4894
147596	60.8147	62.7009	63.7071	65.0889	63.6133
152716	61.2363	63.8302	63.7071	65.0889	62.4894
157836	62.2200	61.5710	63.5665	65.0889	62.4894
174432	60.6741	63.8302	63.7071	65.0889	64.8770
179552	62.2200	61.5710	63.5665	65.0889	62.4894
184672	60.8147	62.7009	63.7071	63.9659	63.6133
189792	60.1117	62.7009	63.7071	63.9659	64.8770
194912	62.2200	61.5710	63.5665	62.8423	62.4894
200032	60.1117	62.7009	63.7071	62.8423	63.6133
205152	60.5335	62.7009	63.7071	62.8423	63.4729
210272	62.2200	61.5710	63.5665	62.8423	62.4894
215392	60.1117	62.7009	63.7071	62.8423	63.6133
220512	61.0958	63.8302	63.7071	62.8423	63.4729
225632	62.3605	61.5710	63.7071	62.8423	62.4894
230752	60.1117	63.8302	63.7071	62.8423	63.4729
247291	62.3605	61.5710	63.5665	62.8423	62.4894
252411	60.1117	62.7009	63.7071	62.8423	64.8770
257531	60.1117	62.7009	63.7071	62.8423	62.4894
262651	62.2200	61.5710	63.5665	60.4527	62.4894
267771	60.1117	62.7009	63.7071	62.8423	62.4894
272891	58.9864	62.7009	63.5665	60.4527	62.4894
278011	61.2363	60.4406	63.7071	60.1714	62.3488
283131	58.9864	61.5710	62.5827	61.7181	62.3488
288251	58.8457	60.4406	63.5665	60.0308	61.3649
293371	60.1117	59.3096	62.4422	60.7340	61.3649
298491	57.8605	59.3096	62.4422	60.1714	62.3488
303611	57.7198	58.1780	61.4578	60.0308	61.2243
320116	57.8605	59.3096	61.4578	59.6087	61.3649
325236	56.8750	56.4797	60.3324	60.0308	60.2398
330356	58.9864	55.9133	61.3172	59.4680	60.2398
335476	56.8750	56.4797	60.3324	60.0308	61.2243
340596	56.8750	55.9133	60.3324	59.4680	60.2398
345716	57.8605	54.7801	59.2064	59.4680	60.2398
350836	56.8750	55.9133	60.3324	59.6087	61.3649
355956	56.8750	55.9133	60.3324	59.4680	61.3649
361076	57.7198	54.7801	59.2064	59.4680	60.2398
366196	54.4799	55.9133	60.3324	59.4680	60.2398

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME \*TR704A\*

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941A	FCALB 31941B
PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941A	FCALB 31941B
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48
.371316	55.4664	54.7801	59.2064	59.4680	60.2398	58.9332	60.2418	-.88744	-.19371
.376436	57.1566	54.7801	59.2064	59.4680	60.2398	58.9332	60.2418	.166944	-.19371
.393074	54.4799	55.9133	59.2064	59.4680	60.2398	58.9332	60.2418	-.04393	-.19371
.398194	57.7198	54.7801	59.2064	59.4680	60.2398	58.9332	60.2418	-.67656	-.19371
.403314	54.4799	55.9133	59.2064	59.4680	60.2398	58.9332	60.2418	-1.7309	-.19371
.408434	54.4799	54.7801	59.0656	59.4680	60.2398	58.3701	61.2257	-.46569	-.19371
.413554	57.1566	54.7801	59.0656	58.3422	59.8177	58.9332	60.2418	.166944	-.19371
.418674	54.4799	55.9133	59.2064	59.4680	60.2398	58.9332	60.2418	-.88744	-.19371
.423794	54.4799	54.7801	59.0656	58.3422	59.8177	58.9332	60.2418	-.04393	-.19371
.428914	56.8750	54.7801	59.0656	58.3422	59.1141	58.9332	60.2418	-.04393	-.19371
.434034	54.3389	55.9133	59.2064	59.4680	61.2243	58.9332	60.2418	-.88744	-.19371
.439154	54.4799	54.7801	58.0798	58.3422	60.0991	58.9332	60.2418	-.88744	-.19371
.444274	56.8750	53.6464	58.0798	59.4680	60.0991	58.9332	60.2418	-.04393	-.19371
.449394	53.3519	55.9133	59.2064	59.4680	61.2243	58.9332	60.2418	-.46569	-.19371
.465837	55.6073	54.7801	58.0798	59.4680	60.2398	58.9332	59.1168	-.04393	-.19371
.470957	53.3519	55.9133	59.0656	59.4680	60.2398	58.9332	60.2418	-.46569	-.19371
.476077	54.4799	54.7801	58.0798	59.4680	60.0991	58.9332	60.2418	-.04393	-.19371
.481197	54.4799	54.7801	58.0798	59.4680	60.0991	58.9332	60.1012	.166944	-.19371
.486317	53.3519	55.9133	59.0656	59.4680	60.2398	58.9332	60.2418	-.04393	-.19371
.491437	54.4799	54.7801	58.0798	59.4680	60.0991	58.3701	60.2418	-.04393	-.19371
.496557	54.4799	54.7801	58.0798	59.4680	60.0991	58.9332	59.1168	-1.5201	-.19371
.501677	53.2109	55.9133	59.0656	59.4680	60.2398	58.9332	60.2418	-.46569	-.19371
.506797	54.4799	54.7801	58.0798	59.4680	60.2398	58.9332	59.1168	-.46569	-.19371
.511917	54.4799	54.7801	59.0656	59.4680	60.0991	58.9332	60.1012	-.46569	-.19371
.517037	53.2109	54.7801	58.0798	59.4680	60.2398	58.9332	60.2418	-1.5201	-.19371
.522157	54.4799	54.7801	57.9389	59.4680	60.2398	58.9332	59.1168	-.88744	-.19371
.538726	52.9288	54.7801	58.0798	59.4680	60.2398	58.9332	60.2418	-.88744	-.19371
.543846	53.3519	53.6464	57.3754	59.4680	60.0991	58.9332	59.1168	-.04393	-.19371
.548966	54.3389	54.7801	57.9389	59.4680	60.2398	58.9332	59.1168	-.04393	-.19371
.554086	53.2109	54.7801	57.9389	59.4680	60.2398	59.0739	61.2257	-.04393	-.19371
.559206	54.0569	53.6464	57.3754	59.4680	60.2398	58.9332	59.1168	-1.5201	-.19371
.564326	54.3389	53.6464	57.0936	59.4680	60.0991	58.9332	59.1168	-.88744	-.19371
.569446	52.2235	54.7801	57.0936	59.4680	60.2398	58.9332	60.1012	-.04393	-.19371
.574566	54.4799	52.5121	57.0936	58.3422	59.1141	58.3701	59.1168	-.04393	-.19371
.579686	54.3389	53.6464	55.8250	58.3422	58.9734	58.3701	59.1168	-1.5201	-.19371
.584806	52.2235	54.7801	57.0936	58.3422	59.1141	58.3701	60.2418	.166944	-.19371
.589926	54.3389	52.5121	54.6968	57.2158	57.9879	58.3701	59.1168	-.04393	-.19371
.595046	54.0569	53.6464	54.6968	57.2158	57.9879	58.3701	59.1168	-.46569	-.19371
.611667	54.4799	52.5121	54.6968	56.0888	57.9879	57.2435	57.9912	-.04393	-.19371
.616787	54.4799	52.5121	54.5558	54.9613	57.2838	57.2435	57.9912	-.88744	-.19371
.621907	52.2235	54.7801	54.6968	56.0888	57.9879	57.2435	57.9912	.166944	-.19371
.627027	54.4799	52.5121	54.5558	53.8333	56.8612	56.1164	57.2874	-.88744	-.19371
.632147	54.3389	52.5121	53.9915	53.8333	56.8612	56.1164	57.0059	-.04393	-.19371
.637267	52.2235	53.6464	53.5681	53.8333	57.2838	56.1164	57.2874	.166944	-.19371
.642387	54.4799	51.3774	53.5681	53.8333	56.4385	54.9887	57.0059	-.04393	-.19371
.647507	54.3389	52.5121	53.5681	53.8333	56.1567	54.9887	57.0059	-.04393	-.19371
.652627	54.4799	54.7801	57.0936	53.8333	56.7203	54.9887	57.0059	-.04393	-.19371
.657747	65.8697	63.8302	68.1984	56.0888	56.7203	58.3701	57.5690	-.46569	-.19371
.662867	79.0110	90.7448	97.0077	62.8423	59.5363	66.2405	62.4901	-.04393	-.19371

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4		TW-C6		TW-D2		TW-D4		FCALB 31941B	
PARAMETER	TW-C5		TW-D1		TW-D3		FCALA 31941A			
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS	
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48	
.667987	98.6948	127.157	141.968	77.4018	69.2241	80.7781	74.9532	.166944	-.19371	
.684163	147.104	209.653	255.862	119.346	100.490	118.290	110.363	-.04393	-.19371	
.689283	179.579	257.962	334.379	152.990	125.421	146.548	136.525	-.46569	-.19371	
.694403	218.316	301.764	413.084	189.632	154.688	179.982	163.398	-.04393	-.19371	
.699523	258.116	341.410	487.456	229.698	185.000	217.789	193.418	-.04393	-.19371	
.704643	296.710	374.233	553.205	268.193	215.246	256.078	223.166	-.04393	-.19371	
.709763	336.198	397.921	609.520	300.688	243.594	293.950	251.183	-.46569	-.19371	
.714883	369.989	418.152	656.977	328.858	268.984	327.805	278.884	-1.5201	-.19371	
.720003	399.030	433.835	695.623	352.535	292.579	355.995	306.844	.166944	-.19371	
.725123	425.564	445.009	725.310	369.284	310.643	379.627	330.646	-.04393	-.19371	
.730243	446.141	456.158	750.385	382.913	325.158	397.582	353.889	-.46569	-.19371	
.735363	461.521	463.949	769.022	394.133	339.116	412.131	374.704	-.04393	-.19371	
.740483	478.096	469.506	784.442	400.856	347.714	421.624	392.662	-.04393	-.19371	
.757012	497.780	482.819	806.609	409.807	362.361	435.553	419.500	-1.5201	-.19371	
.762132	509.859	487.250	816.156	413.160	366.864	439.724	430.505	-.04393	-.19371	
.767252	518.764	493.888	827.815	418.744	371.365	444.448	441.487	-.04393	-.19371	
.772372	526.425	499.414	836.290	420.976	375.863	446.669	450.505	-.04393	-.19371	
.777492	536.260	502.727	844.629	422.092	378.111	448.751	457.155	-.04393	-.19371	
.782612	543.490	508.244	853.229	426.552	382.746	452.219	463.934	-.04393	-.19371	
.787732	549.350	512.654	860.767	428.781	383.729	454.437	467.113	-.04393	-.19371	
.792852	560.375	514.858	865.924	429.895	384.852	455.545	470.428	-.46569	-.19371	
.797972	564.589	520.364	873.195	431.008	385.974	456.654	473.603	.166944	-.19371	
.803092	570.974	524.764	878.614	434.348	388.219	457.208	474.707	.166944	-.19371	
.808212	579.795	526.964	883.900	435.461	389.341	459.977	474.845	-.04393	-.19371	
.813332	584.133	531.359	889.186	436.574	389.341	461.085	478.017	-.04393	-.19371	
.829515	595.645	535.752	898.566	437.686	391.725	462.192	478.155	-.46569	-.19371	
.834635	598.216	540.142	903.057	438.798	392.566	464.406	479.258	-.04393	-.19371	
.839755	603.760	543.432	907.152	440.466	392.706	465.512	481.601	-.88744	-.19371	
.844875	609.031	544.528	909.266	442.133	393.407	465.512	481.601	-.04393	-.19371	
.849995	612.408	547.816	912.436	443.244	392.706	466.065	481.601	-.04393	-.19371	
.855115	614.298	550.007	915.474	444.355	393.828	466.480	481.601	-.04393	-.19371	
.860235	618.753	550.007	917.587	444.355	393.688	467.725	481.601	-.04393	-.19371	
.865355	621.316	553.293	920.889	445.465	393.828	468.830	481.601	-.04393	-.19371	
.870475	624.014	553.840	924.059	445.465	393.828	468.830	481.877	-.46569	-.19371	
.875595	629.676	553.977	926.173	444.355	393.828	468.830	481.601	-1.5201	-.19371	
.880715	629.946	557.670	928.418	444.355	394.809	469.936	481.601	-.04393	-.19371	
.885835	632.640	557.670	929.343	445.465	393.828	469.936	481.601	.166944	-.19371	
.902437	638.297	559.858	932.513	444.355	394.949	471.041	481.601	-.04393	-.19371	
.907557	639.239	560.952	934.626	445.465	394.949	471.041	481.601	-.04393	-.19371	
.912677	643.950	560.952	936.872	444.355	394.949	471.041	481.877	-.04393	-.19371	
.917797	644.219	562.592	938.853	444.355	395.369	472.146	482.428	-.46569	-.19371	
.922917	646.909	565.324	940.834	444.355	396.070	473.251	483.530	-.46569	-.19371	
.928037	650.944	565.324	941.891	444.355	395.930	473.251	483.668	-.46569	-.19371	
.933157	650.003	567.510	942.023	445.465	396.070	473.251	484.769	-1.5201	-.19371	
.938277	652.019	567.510	944.136	445.465	396.070	473.251	485.458	-.04393	-.19371	
.943397	656.320	567.510	946.118	443.244	395.930	473.251	485.733	-.04393	-.19371	
.948517	656.051	569.694	949.024	445.465	397.051	473.251	486.835	-.04393	-.19371	
.953637	657.395	569.694	950.477	445.465	397.051	473.251	486.835	-.04393	-.19371	
.958757	659.679	569.694	953.779	444.355	397.051	473.251	486.972	-.04393	-.19371	

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B	FCALB 31941A
PARAMETER	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48
.975278	659.679	571.333	954.044	445.465	396.070	473.251	487.936	-.04393	-.19371
.980398	661.827	571.333	954.704	445.465	396.070	473.251	487.936	-.04393	-.19371
.985518	661.693	574.062	955.761	446.576	397.051	474.356	489.037	-.04393	-.19371
.990638	664.110	575.153	957.478	446.576	396.070	474.356	488.073	-.04393	-.19371
.995758	665.989	575.153	957.874	446.576	395.930	474.356	489.037	-.04393	-.19371
1.000878	665.050	576.244	959.988	447.686	396.070	474.356	490.413	-.88744	-.19371
1.005998	666.124	576.244	962.234	447.686	394.949	474.356	490.413	-.46569	-.19371
1.011118	670.418	577.335	962.234	447.686	396.070	474.356	490.688	-.04393	-.19371
1.016238	669.344	578.426	962.630	447.686	397.191	474.356	491.238	-.04393	-.19371
1.021358	670.418	579.517	963.158	447.686	397.191	474.356	491.375	-.04393	-.19371
1.026478	674.040	579.517	963.158	447.686	397.191	474.356	492.338	-.04393	-.19371
1.031598	672.698	580.062	963.158	447.686	398.311	474.356	492.476	-.04393	-.19371
1.047745	675.783	580.062	962.234	447.686	397.891	474.356	492.476	-.04393	-.19371
1.052865	675.783	582.788	963.026	448.796	398.171	474.356	492.476	-.04393	-.19371
1.057985	675.783	582.788	963.158	448.796	398.171	474.356	492.338	-.46569	-.19371
1.063105	678.866	580.062	964.083	448.796	397.191	474.356	492.338	-.04393	-.19371
1.068225	677.928	582.788	966.197	449.351	397.891	474.908	491.375	-.46569	-.19371
1.073345	678.866	582.788	967.254	449.351	397.611	474.908	491.375	.166944	-.19371
1.078465	681.547	582.788	968.443	451.015	397.191	474.908	491.375	.166944	-.19371
1.083585	681.279	587.148	970.688	449.767	398.311	476.564	492.476	-1.7309	-.19371
1.088705	681.815	586.058	971.613	449.351	397.891	476.564	491.375	-.04393	-.19371
1.093825	683.289	587.148	972.670	449.628	397.191	476.564	491.375	-1.7309	-.19371
1.098945	682.217	588.237	974.784	449.351	398.311	477.668	491.375	-.04393	-.19371
1.104065	683.289	588.782	974.784	448.796	398.171	476.564	491.375	.166944	-.19371
1.120593	685.299	590.416	974.784	448.796	399.292	477.668	491.926	-.67656	-.19371
1.125713	685.433	588.782	974.784	448.796	398.311	477.668	491.238	.166944	-.19371
1.130833	687.576	588.782	974.652	448.796	399.431	476.564	491.238	-.04393	-.19371
1.135953	686.370	591.505	974.784	448.796	400.692	477.668	491.375	-.04393	-.19371
1.141073	687.174	591.505	974.784	448.796	399.292	477.668	491.238	-.04393	-.19371
1.146193	689.852	589.054	975.841	448.796	399.431	476.564	490.413	-.46569	-.19371
1.151313	686.504	591.505	976.898	447.686	400.692	476.564	491.238	-.04393	-.19371
1.156433	687.576	591.505	979.143	447.686	399.431	476.564	490.963	-.04393	-.19371
1.161553	689.852	591.505	980.068	447.686	400.692	476.564	491.238	-.04393	-.19371
1.166673	687.442	593.682	981.125	447.686	400.692	476.564	492.063	-.04393	-.19371
1.171793	689.852	592.593	981.125	447.686	400.692	477.668	492.338	-.46569	-.19371
1.176913	689.852	593.682	981.125	447.686	400.692	477.668	492.338	-.04393	-.19371
1.193528	687.576	595.859	980.993	447.686	399.852	477.668	492.476	-.04393	-.19371
1.198648	689.852	595.859	980.068	449.351	400.692	476.564	492.476	-.04393	-.19371
1.203768	687.576	597.491	979.408	449.489	401.531	477.668	492.476	-.04393	-.19371
1.208888	689.852	596.947	979.143	449.351	400.692	476.564	492.476	-.04393	-.19371
1.214008	690.120	595.859	979.143	449.351	400.692	476.564	493.576	.166944	-.19371
1.219128	689.852	596.947	979.143	449.628	400.692	477.668	494.675	-.04393	-.19371
1.224248	689.852	595.859	979.143	449.351	400.692	477.668	493.576	-.04393	-.19371
1.229368	691.459	596.947	976.898	449.628	399.431	477.668	494.538	-.46569	-.19371
1.234488	690.120	597.491	979.143	452.124	400.972	477.668	494.675	-.04393	-.19371
1.239608	691.726	596.947	979.143	452.124	400.692	477.668	494.538	-.04393	-.19371
1.244728	692.797	596.947	980.068	452.124	400.692	477.668	494.675	.166944	-.19371
1.249848	691.191	597.491	981.125	452.124	400.692	477.668	494.675	-.04393	-.19371
1.265986	694.002	596.947	981.125	452.124	400.692	477.668	494.675	-.04393	-.19371

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B	FCALB 31941A
PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B	FCALB 31941A
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48
1.271106	691.860	597.763	982.182	452.124	401.531	477.668	494.675	-1.7309	-.19371
1.276226	694.002	599.123	983.239	452.124	401.531	477.668	494.675	-.04393	-.19371
1.281346	694.939	600.211	983.239	452.124	401.531	478.772	494.538	-.04393	-.19371
1.286466	693.601	601.299	984.296	449.767	401.672	478.772	494.538	-.04393	-.19371
1.291586	694.002	600.211	984.956	449.351	401.531	478.772	493.576	-.46569	-.19371
1.296706	695.073	600.211	985.353	449.351	401.252	479.875	494.263	-.04393	-.19371
1.301826	693.868	601.299	985.353	449.351	402.371	479.875	494.538	-.04393	-.19371
1.306946	696.010	601.299	985.353	448.796	401.112	479.875	493.576	-.04393	-.19371
1.312066	698.418	601.299	985.353	448.796	401.672	478.772	493.576	-.04393	-.19371
1.317186	695.073	602.386	987.598	448.796	401.531	478.772	494.538	-.04393	-.19371
1.322306	696.143	601.299	984.956	449.351	401.531	478.772	494.126	-.46569	-.19371
1.338792	695.073	602.386	984.296	452.124	401.531	477.668	494.675	-.04393	-.19371
1.343912	696.143	601.299	984.296	449.767	401.531	477.668	494.538	.166944	-.19371
1.349032	698.418	601.299	985.220	452.124	400.692	477.668	494.538	-.04393	-.19371
1.354152	695.073	601.299	987.598	452.124	401.672	477.668	494.675	-.04393	-.19371
1.359272	698.418	601.299	987.598	449.767	401.531	477.668	494.538	-.04393	-.19371
1.364392	698.418	601.299	988.127	449.628	400.692	477.668	494.538	-.04393	-.19371
1.369512	696.010	603.473	989.448	449.351	401.252	477.668	494.675	.166944	-.19371
1.374632	698.418	603.473	989.580	448.796	400.692	477.668	494.675	-.04393	-.19371
1.379752	698.418	604.561	989.580	448.796	399.852	477.668	494.675	-.46569	-.19371
1.384872	696.010	604.561	990.637	448.796	400.692	477.668	494.675	-1.5201	-.19371
1.389992	699.221	604.561	989.580	448.796	400.692	477.668	494.675	-.04393	-.19371
1.395112	698.418	604.561	989.580	448.796	399.431	477.668	494.675	-.88744	-.19371
1.411716	699.221	604.561	989.448	447.686	400.692	477.668	494.675	-1.7309	-.19371
1.416836	699.354	604.561	988.523	447.686	400.692	477.668	494.538	-.04393	-.19371
1.421956	698.418	606.191	988.391	447.686	400.692	477.668	494.538	-.46569	-.19371
1.427076	700.291	605.647	988.127	447.686	400.692	477.668	492.476	-.04393	-.19371
1.432196	700.291	606.191	987.598	447.686	399.292	477.668	492.476	-.04393	-.19371
1.437316	698.685	606.191	987.598	448.796	399.292	477.668	492.476	-1.5201	-.19371
1.442436	700.291	605.647	987.598	447.686	398.311	477.668	492.476	-1.5201	-.19371
1.447556	700.291	606.191	985.220	448.796	398.311	477.668	492.476	-1.5201	-.19371
1.452676	699.221	608.908	985.353	448.796	400.692	477.668	492.476	-.04393	-.19371
1.457796	701.361	606.463	985.353	448.796	398.311	476.564	492.476	-.04393	-.19371
1.462916	700.424	608.908	985.353	449.489	400.692	477.668	494.538	-.04393	-.19371
1.468036	699.354	608.908	985.353	451.015	400.972	477.668	494.675	.166944	-.19371
1.484191	701.494	608.908	987.598	449.351	400.692	477.668	494.675	-.04393	-.19371
1.489311	700.291	610.537	987.598	449.628	400.972	477.668	495.775	-.46569	-.19371
1.494431	702.564	609.994	988.391	449.628	400.692	477.668	494.675	-.04393	-.19371
1.499551	702.564	611.080	988.523	452.124	401.531	477.668	495.638	-.04393	-.19371
1.504671	700.424	613.253	989.580	449.767	401.531	477.668	495.638	-.88744	-.19371
1.509791	703.634	612.167	989.580	449.351	400.972	477.668	494.675	-1.7309	-.19371
1.514911	703.634	613.253	989.580	449.351	400.692	477.668	494.675	-.88744	-.19371
1.520031	702.163	613.253	989.580	449.351	401.531	478.772	494.675	-.88744	-.19371
1.525151	704.570	612.167	989.580	448.796	400.692	477.668	494.538	-.04393	-.19371
1.530271	703.500	613.253	989.580	448.796	400.692	478.772	493.576	-1.5201	-.19371
1.535391	702.431	614.338	989.580	448.796	400.972	478.772	493.576	-.04393	-.19371
1.540511	704.570	613.253	990.637	448.796	400.692	477.668	493.576	-.04393	-.19371
1.556647	702.431	614.338	992.618	449.767	401.531	478.772	493.576	-.04393	-.19371
1.561767	704.302	613.253	993.675	452.124	400.692	477.668	492.476	-.46569	-.19371

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALH 31941H
PARAMETER	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LRS
UNITS								LRS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45
1.566887	704.704	614.338	993.675	452.124	401.252	477.668	494.263	.166944
1.572007	704.035	614.881	993.807	452.124	401.531	477.668	494.538	-1.5201
1.577127	706.976	614.338	996.053	452.124	401.531	477.668	494.538	-1.7309
1.582247	706.976	614.338	996.053	452.124	401.531	478.772	494.538	-.46569
1.587367	704.704	614.338	996.317	449.628	401.252	478.772	494.675	-.88744
1.592487	707.778	613.253	996.053	449.628	401.672	478.772	494.675	-.88744
1.597607	706.976	613.253	996.053	451.015	401.531	479.875	495.775	-.88744
1.602727	704.704	613.253	996.053	452.124	401.672	479.875	495.775	-1.5201
1.607847	707.244	612.167	996.053	452.124	401.531	479.875	495.775	-.88744
1.612967	704.704	612.167	996.053	452.124	401.672	479.875	496.737	-.46569
1.629484	706.976	611.080	996.053	452.124	401.531	478.772	495.775	-1.5201
1.634604	704.704	612.167	996.053	453.233	401.531	478.772	495.775	-.04393
1.639724	703.634	613.253	996.053	453.233	401.672	478.772	495.775	-.88744
1.644844	705.773	612.167	993.807	453.233	401.252	478.772	494.675	-1.5201
1.649964	704.704	613.253	993.807	453.233	401.672	478.772	494.675	.166944
1.655084	703.500	614.338	992.750	452.124	401.531	478.772	494.538	.166944
1.660204	706.976	613.253	992.618	452.124	401.252	477.668	494.263	-1.5201
1.665324	704.704	614.338	991.561	453.233	401.531	478.772	493.576	-.88744
1.670444	704.704	614.338	991.561	453.233	401.531	478.772	493.576	-1.5201
1.675564	707.511	613.253	991.561	452.124	401.252	478.772	493.438	-1.5201
1.680684	706.976	613.253	991.693	453.233	401.672	478.772	493.576	-1.5201
1.685804	705.773	613.253	992.618	452.124	402.371	478.772	494.538	.166944
1.702747	706.976	613.253	993.411	452.124	402.791	478.772	494.675	-1.5201
1.707867	704.704	614.338	993.675	452.124	401.672	478.772	494.675	-.04393
1.712987	707.778	613.253	993.675	452.124	402.651	478.772	494.675	-.46569
1.718107	706.976	614.338	993.675	452.124	402.651	478.772	495.638	-1.5201
1.723227	704.704	614.338	992.750	452.124	402.371	478.772	495.638	-.88744
1.728347	707.511	614.338	992.750	452.124	401.531	478.772	494.675	-.46569
1.733467	706.976	614.881	992.750	452.124	401.672	478.772	495.638	-1.5201
1.738587	706.976	614.881	991.693	452.124	401.531	477.668	494.675	-.04393
1.743707	708.580	614.338	991.693	452.124	401.531	477.668	494.675	.166944
1.748827	706.976	614.338	992.750	452.124	401.531	477.668	494.675	-.04393
1.753947	707.244	614.338	993.411	452.124	402.091	477.668	494.538	-.04393
1.759067	708.847	614.338	993.807	452.124	400.972	477.668	494.538	-.46569
1.789557	706.976	616.510	996.977	452.124	401.531	478.772	495.638	-.46569
1.810456	707.778	614.881	996.053	449.351	400.972	479.875	496.874	-1.5201
1.828239	707.778	614.338	993.807	449.351	400.692	479.875	496.737	-.88744
1.846342	708.981	613.253	992.750	449.767	401.531	478.772	496.874	.166944
1.864088	711.119	614.338	993.807	452.124	401.672	478.772	499.484	-.04393
1.882182	712.589	617.595	997.638	452.124	402.371	479.875	501.269	-.04393
1.900846	713.123	618.680	999.090	452.124	402.651	479.875	500.034	-.04393
1.918601	712.188	618.680	999.916	449.767	402.791	479.875	496.737	-.88744
1.936729	711.119	618.680	999.090	449.351	402.791	479.875	493.576	-1.7309
1.954481	712.054	618.680	998.034	449.351	402.791	479.875	494.538	-.88744
1.972577	712.188	618.680	998.034	452.124	402.651	479.875	496.462	-.04393
1.991189	713.123	618.680	1000.05	452.124	401.531	479.875	496.874	-.04393
2.016634	715.527	620.850	1004.40	452.124	400.972	479.875	496.874	-.46569
2.037007	712.054	621.935	1001.10	453.233	401.112	479.875	500.034	-.04393
2.054782	711.119	617.595	998.034	453.233	400.692	478.772	500.171	.166944



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B	FCALB 31941A
PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B	FCALB 31941A
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48
2.072884	710.985	618.680	1000.05	452.124	400.692	479.875	502.368	-.04393	-.19371
2.091116	711.119	619.766	1000.05	449.351	400.692	479.875	503.466	-1.5201	-.19371
2.109302	712.856	621.935	1000.05	452.124	400.692	479.875	503.328	-.04393	-.19371
2.127443	715.527	623.020	1002.03	454.342	401.531	479.875	502.368	-.04393	-.19371
2.145171	716.329	625.189	1002.16	454.342	401.672	480.979	501.132	-1.5201	-.19371
2.163297	716.462	623.562	999.916	454.342	401.672	480.979	500.171	-.04393	-.19371
2.181475	716.062	623.562	999.090	454.342	402.371	482.082	500.171	.166944	-.19371
2.199663	715.527	623.020	1001.76	453.233	401.672	480.979	499.484	-.04393	-.19371
2.217800	715.527	623.020	1001.10	454.342	402.651	479.875	499.210	-.46569	-.19371
2.243644	715.795	621.935	999.090	452.124	401.672	479.875	499.210	-.04393	-.19371
2.264253	717.397	623.020	996.977	454.342	402.651	480.979	500.171	-.04393	-.19371
2.282308	716.462	623.020	996.977	454.342	402.791	482.082	500.171	-1.5201	-.19371
2.300947	715.527	623.020	1000.05	454.342	402.791	482.082	500.171	-.04393	-.19371
2.318690	715.527	626.273	1002.03	453.233	402.791	480.979	500.171	-.04393	-.19371
2.336430	713.257	626.273	1002.16	453.233	402.651	480.979	500.171	-1.5201	-.19371
2.354552	713.257	626.273	1002.16	453.233	401.672	480.979	503.054	-.04393	-.19371
2.372680	713.123	627.357	1004.40	454.342	402.651	480.979	505.524	-.04393	-.19371
2.391274	715.527	627.357	1002.16	453.233	401.672	479.875	507.993	-.04393	-.19371
2.409492	715.527	626.273	1000.97	453.233	401.531	479.875	507.993	-.04393	-.19371
2.427241	716.062	626.273	996.977	454.342	402.651	479.875	507.993	-.04393	-.19371
2.444978	715.795	626.273	997.902	452.124	402.651	480.979	507.993	-1.5201	-.19371
2.471239	715.527	628.442	999.090	454.342	402.791	480.979	507.993	-.04393	-.19371
2.493319	715.527	626.273	1000.05	454.342	400.972	480.979	507.993	-1.5201	-.19371
2.511508	716.329	627.357	1000.05	454.342	400.692	479.875	508.267	-.04393	-.19371
2.529731	716.329	626.273	1000.05	452.124	400.692	479.875	508.267	-.46569	-.19371
2.547862	716.462	627.357	1000.97	452.124	400.692	479.875	507.993	-.04393	-.19371
2.565606	716.329	629.525	1001.10	455.450	400.692	480.979	507.993	-.04393	-.19371
2.583722	716.329	631.693	1000.97	456.559	399.852	480.979	507.993	-.04393	-.19371
2.601878	715.527	631.693	999.090	456.559	400.972	480.979	507.993	-.46569	-.19371
2.620552	713.257	630.609	999.090	456.559	401.672	482.082	507.993	-.04393	-.19371
2.638289	715.527	628.442	1001.10	455.450	402.231	482.082	507.993	-.88744	-.19371
2.656390	715.795	630.609	1002.16	455.450	402.651	483.184	508.953	-.04393	-.19371
2.674519	716.462	631.693	1000.97	456.559	401.672	482.082	508.953	-.46569	-.19371
2.699949	717.397	631.693	1001.10	457.667	402.651	480.979	508.267	.166944	-.19371
2.721326	715.527	632.234	1004.80	457.667	402.791	482.082	508.267	-.04393	-.19371
2.739517	715.795	634.943	1004.40	456.559	402.791	483.184	508.815	.166944	-.19371
2.757657	716.462	633.859	1002.16	456.559	402.651	482.082	508.267	-.04393	-.19371
2.775405	717.397	631.693	1002.16	456.559	402.651	483.184	508.815	-.04393	-.19371
2.793530	718.999	630.609	1002.16	456.559	402.651	483.184	508.953	.166944	-.19371
2.811720	719.266	630.609	1002.03	456.559	402.791	483.184	508.815	-.04393	-.19371
2.830449	718.599	630.609	999.090	454.342	402.791	483.184	508.267	-.04393	-.19371
2.848178	718.599	629.525	996.977	454.342	402.791	483.184	507.993	-.04393	-.19371
2.866318	717.531	630.609	998.034	456.559	402.791	482.082	508.267	-1.5201	-.19371
2.884062	718.465	630.609	1000.05	455.450	402.791	482.082	508.267	-.04393	-.19371
2.902188	717.531	631.693	1002.16	454.342	403.771	482.082	508.953	.166944	-.19371
2.927787	717.531	630.609	1001.10	456.559	402.791	482.082	508.953	-.46569	-.19371
2.947765	718.599	627.357	1001.10	454.342	402.791	482.082	508.953	-.04393	-.19371
2.965888	718.599	629.525	1002.16	453.233	402.651	482.082	508.267	.166944	-.19371
2.983631	719.667	630.609	1004.40	454.342	402.791	482.082	507.993	-.04393	-.19371



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941A	FCALA 31941A
PARAMETER									
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48
3.001785	719.533	631.693	1002.16	454.342	402.791	482.082	505.661	-.04393	-.19371
3.020426	720.601	634.943	1001.10	454.342	403.911	483.184	507.993	-.04393	-.19371
3.038161	719.667	634.943	1000.97	456.559	404.890	483.184	507.993	-.04393	-.19371
3.056269	717.531	630.609	1000.05	456.559	403.911	482.082	505.661	-.04393	-.19371
3.074418	717.531	629.525	1000.97	454.342	403.771	482.082	505.524	-.04393	-.19371
3.092147	718.599	628.442	1004.40	454.342	402.791	482.082	505.524	-.04393	-.19371
3.110785	719.667	628.442	1002.16	454.342	402.791	482.082	505.661	-.04393	-.19371
3.128542	720.735	628.442	999.090	454.342	403.911	482.082	507.993	-.04393	-.19371
3.156510	720.735	631.693	998.034	454.342	403.911	483.184	511.146	-.04393	-.19371
3.175442	720.735	631.693	1000.05	454.342	402.791	483.184	512.105	-.04393	-.19371
3.193586	721.669	632.234	999.916	453.233	402.371	482.082	511.146	.166944	-.19371
3.211780	724.072	631.693	1000.05	454.342	402.651	483.184	511.146	-.88744	-.19371
3.230468	724.072	630.609	1001.10	454.342	402.791	483.184	512.105	-.04393	-.19371
3.248198	719.667	628.442	1004.40	454.342	402.791	483.184	511.146	-.04393	-.19371
3.266318	720.601	629.525	1004.40	454.342	401.672	483.184	511.146	-.04393	-.19371
3.284462	721.402	630.609	1004.40	456.559	402.651	483.184	510.049	-.04393	-.19371
3.302193	719.533	629.525	1002.16	454.342	402.791	483.184	508.953	-.04393	-.19371
3.320845	718.599	630.609	1001.10	454.342	402.791	483.184	508.953	-.88744	-.19371
3.338579	719.133	631.693	1002.03	454.342	402.791	482.082	508.815	-.46569	-.19371
3.356706	719.667	633.859	1000.05	455.450	402.791	482.082	508.815	-.04393	-.19371
3.382152	721.803	631.693	999.916	454.342	401.672	482.082	508.541	.166944	-.19371
3.403526	719.667	631.693	1001.10	452.124	402.791	482.082	508.404	-.04393	-.19371
3.421739	719.533	630.609	1002.03	452.124	402.791	483.184	508.267	-.04393	-.19371
3.439947	719.667	630.609	1000.97	454.342	403.911	483.184	507.993	-.46569	-.19371
3.457685	719.667	630.609	1000.97	454.342	403.911	483.184	507.993	.166944	-.19371
3.475795	720.601	631.693	1002.16	454.342	402.791	483.184	505.661	-.04393	-.19371
3.493927	719.667	631.693	1004.40	454.480	402.791	482.082	504.563	-.04393	-.19371
3.512101	721.269	630.609	1004.40	456.559	402.651	483.184	505.661	-.46569	-.19371
3.530814	721.669	631.693	1004.40	456.559	402.651	483.736	507.993	-.04393	-.19371
3.548549	721.803	631.693	1004.40	456.559	402.651	483.736	508.130	.166944	-.19371
3.566692	721.669	631.693	1002.16	456.559	402.651	483.736	507.993	.166944	-.19371
3.584847	719.667	631.693	1000.05	456.559	402.791	483.736	507.993	-.04393	-.19371
3.610723	719.667	630.609	999.916	456.559	404.890	483.184	507.993	-.04393	-.19371
3.631319	721.669	631.693	1000.05	456.559	402.791	483.184	507.993	-.04393	-.19371
3.649894	721.803	632.234	999.090	456.559	402.791	483.184	508.815	.166944	-.19371
3.667624	721.669	631.693	999.090	455.450	403.911	483.184	508.267	-.04393	-.19371
3.685779	718.599	630.609	998.034	452.124	404.890	483.184	507.993	-1.5201	-.19371
3.703510	717.531	630.609	998.034	454.342	404.890	483.184	507.993	-.04393	-.19371
3.722141	717.397	631.693	1000.97	455.450	404.890	483.184	505.524	-.04393	-.19371
3.740813	717.531	631.693	1002.16	456.559	404.890	483.184	505.524	.166944	-.19371
3.758559	719.266	631.693	1004.40	456.559	404.890	483.184	505.661	.166944	-.19371
3.776683	718.599	630.609	1001.10	455.450	405.030	483.184	507.993	-.04393	-.19371
3.794440	719.533	630.609	1000.05	455.450	404.890	483.184	507.993	-.46569	-.19371
3.812557	721.669	630.609	1001.10	457.667	405.030	483.184	507.993	-.88744	-.19371
3.838017	718.599	631.693	1000.97	457.667	403.911	483.184	507.993	-.04393	-.19371
3.859489	717.397	631.693	998.034	455.450	402.651	483.184	507.993	.166944	-.19371
3.877229	719.533	631.693	1001.10	455.450	402.791	483.184	507.993	.166944	-.19371
3.895369	720.735	630.609	1000.97	454.342	402.791	483.184	507.993	-.04393	-.19371
3.913109	721.803	630.609	999.090	454.342	402.791	483.184	507.993	-.04393	-.19371

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B	FCALA 31941A
PARAMETER									
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48
3.931703	724.072	630.609	998.034	454.342	402.791	483.184	507.993	-.04393	-.19371
3.949917	721.803	629.525	998.034	455.450	402.791	483.184	507.993	-.46569	-.19371
3.967657	719.667	630.609	999.090	456.559	402.791	483.184	505.661	-.46569	-.19371
3.985790	719.667	632.234	1000.97	456.559	402.791	483.184	505.250	-.04393	-.19371
4.003538	720.601	634.943	1000.97	454.342	402.791	483.184	503.466	-.04393	-.19371
4.022106	719.533	632.234	997.638	455.450	402.791	483.184	504.426	.166944	-.19371
4.040752	719.533	631.693	996.977	454.342	402.791	482.082	505.524	-.88744	-.19371
4.066213	721.803	630.609	999.090	454.342	402.791	483.184	507.993	-.46569	-.19371
4.086657	719.667	630.609	1000.05	455.450	403.911	483.736	507.993	-.04393	-.19371
4.104411	720.601	631.693	1002.16	456.559	404.330	484.149	507.993	-.04393	-.19371
4.122515	720.735	634.943	1002.16	456.559	404.890	483.874	508.815	-.04393	-.19371
4.141141	721.803	634.943	1002.16	454.342	405.030	483.736	507.993	-.04393	-.19371
4.159371	721.669	634.943	999.090	455.450	403.911	483.736	505.661	-.46569	-.19371
4.177115	720.601	631.693	1000.05	455.450	403.911	483.184	507.993	-.46569	-.19371
4.195247	721.669	630.609	1002.16	454.342	404.890	483.736	507.993	-.46569	-.19371
4.212989	724.072	631.693	1004.40	454.342	406.009	483.736	508.267	-.04393	-.19371
4.231559	724.072	631.693	1001.10	454.342	406.009	483.736	508.815	.166944	-.19371
4.249756	721.803	632.234	1004.40	454.342	406.009	483.736	508.953	-.04393	-.19371
4.267490	721.803	636.026	1002.16	456.559	406.149	483.184	510.049	-.04393	-.19371
4.293745	721.803	634.943	1000.97	457.667	406.568	483.184	509.912	-.88744	-.19371
4.313249	724.072	632.234	1002.16	457.667	406.009	483.184	508.953	-.04393	-.19371
4.331436	721.803	633.859	1004.40	458.636	406.149	483.184	508.815	-.04393	-.19371
4.349629	724.072	634.943	1004.40	457.667	406.009	483.736	507.993	-.46569	-.19371
4.367772	721.803	634.943	1004.40	457.667	406.149	484.149	507.993	-.04393	-.19371
4.385513	721.669	632.234	1002.16	456.559	406.149	486.491	507.993	-.46569	-.19371
4.403658	720.601	633.859	1002.16	456.559	406.149	484.149	507.993	-.04393	-.19371
4.421816	719.667	631.693	1000.05	457.667	406.009	483.184	508.267	-.88744	-.19371
4.440488	719.266	629.525	1001.10	458.220	406.009	483.184	507.993	.166944	-.19371
4.458213	719.667	628.442	1002.16	457.667	406.149	483.184	507.993	.166944	-.19371
4.476350	720.735	628.442	1004.40	456.559	406.149	483.184	508.267	-.04393	-.19371
4.494097	720.735	629.525	1004.40	456.559	406.149	483.736	508.404	-.04393	-.19371
4.519519	720.735	631.693	1004.40	457.667	407.268	484.149	508.953	-.04393	-.19371
4.541388	720.601	632.234	1004.40	458.359	407.128	483.736	508.815	-.04393	-.19371
4.559629	721.402	631.693	1004.67	460.989	406.009	483.874	508.953	-.04393	-.19371
4.577368	721.402	630.609	1005.33	459.882	406.009	483.874	507.993	-.04393	-.19371
4.595524	721.669	628.442	1006.25	457.805	406.009	484.011	507.993	-.46569	-.19371
4.613668	721.669	627.357	1006.25	458.636	405.030	484.149	505.661	-.04393	-.19371
4.631812	720.735	628.442	1006.25	457.667	405.030	484.011	507.993	.166944	-.19371
4.650477	719.667	631.693	1004.67	456.559	406.009	483.184	507.993	-.46569	-.19371
4.668239	718.599	631.693	1004.40	456.559	406.009	482.082	507.993	-.46569	-.19371
4.685987	717.531	631.693	1002.16	456.559	406.149	483.184	507.993	-.04393	-.19371
4.704124	717.531	630.609	1002.16	457.667	406.149	483.736	505.524	-.04393	-.19371
4.722231	718.599	629.525	1002.16	457.667	406.149	483.736	504.563	.166944	-.19371
4.750279	721.402	628.442	1002.16	457.667	406.149	483.736	506.621	-.04393	-.19371
4.769606	719.667	630.609	1004.80	457.667	407.128	483.736	508.404	-.04393	-.19371
4.787347	720.601	632.776	1005.99	457.667	408.386	483.736	510.049	-.04393	-.19371
4.805486	719.667	633.859	1006.38	457.667	408.386	484.149	510.049	.166944	-.19371
4.823615	719.533	631.693	1005.33	458.636	409.644	484.149	510.049	-.04393	-.19371
4.841759	720.601	631.693	1006.25	458.636	407.268	483.736	508.953	-.04393	-.19371

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B	FCALB 31941A
PARAMETER	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48
4.860449	721.803	630.609	1005.33	459.882	407.128	483.736	507.993	-.04393	-.19371
4.878184	721.803	630.609	1004.40	459.882	406.848	483.736	507.993	-.04393	-.19371
4.896331	724.072	630.609	1004.40	458.220	407.128	483.322	508.953	-.88744	-.19371
4.914080	721.803	631.693	1006.38	457.667	407.268	483.736	509.912	.166944	-.19371
4.932203	724.072	636.026	1006.38	457.667	407.268	484.011	510.049	-.04393	-.19371
4.950844	721.803	638.192	1006.25	457.667	407.128	484.149	508.953	-.04393	-.19371
4.976685	721.402	634.943	1002.16	457.667	407.268	484.149	505.661	.166944	-.19371
4.996597	721.803	630.609	1004.40	456.559	407.268	484.149	505.524	-.04393	-.19371
5.014372	721.803	629.525	1002.16	455.450	407.128	483.736	505.661	-.04393	-.19371
5.032479	721.803	630.609	1004.40	456.559	407.128	483.184	507.993	-.46569	-.19371
5.051092	721.135	631.693	1005.19	457.667	407.268	483.736	507.993	.166944	-.19371
5.069325	719.667	633.859	1004.40	459.882	407.128	483.736	507.993	-.04393	-.19371
5.087062	719.533	632.234	1002.16	458.220	407.268	483.736	507.993	-.88744	-.19371
5.105183	718.599	631.693	1002.03	457.667	407.268	483.736	507.993	-1.7309	-.19371
5.123325	719.533	634.943	1002.16	456.559	406.149	484.011	508.953	-.04393	-.19371
5.141511	720.735	634.943	1004.67	455.450	406.149	483.736	508.953	-.04393	-.19371
5.159726	719.667	631.693	1005.33	456.559	406.149	483.736	507.993	.166944	-.19371
5.177460	721.669	628.442	1004.40	456.559	405.030	483.184	505.661	-.04393	-.19371
5.203675	719.533	630.609	1005.33	458.359	407.268	483.736	504.426	-.04393	-.19371
5.223935	717.531	632.234	1004.40	458.497	406.848	483.736	504.426	.166944	-.19371
5.241988	717.531	632.776	1000.05	456.559	406.149	483.736	503.466	-.04393	-.19371
5.260645	719.533	634.943	1000.05	456.559	405.030	483.184	505.524	-.04393	-.19371
5.278392	720.735	633.859	1004.67	456.559	406.009	483.184	507.993	-.46569	-.19371
5.296532	720.735	631.693	1007.44	456.559	406.009	483.184	507.993	-.46569	-.19371
5.314644	721.669	632.234	1004.67	456.559	406.009	483.184	507.993	-.04393	-.19371
5.332766	721.803	634.943	1004.40	456.559	406.149	484.149	505.661	.166944	-.19371
5.351472	720.735	633.859	1004.40	457.667	406.149	486.491	504.563	-.04393	-.19371
5.369718	718.599	633.859	1004.40	457.667	407.128	486.491	504.563	-.04393	-.19371
5.387458	717.397	633.859	1005.19	456.559	406.568	486.491	507.993	-.46569	-.19371
5.405556	717.531	634.943	1005.33	457.667	407.268	485.389	508.404	-.04393	-.19371
5.431817	720.735	632.234	1002.16	455.450	407.128	486.491	507.993	-.04393	-.19371
5.453394	718.599	633.859	1000.97	454.342	407.268	485.389	507.993	-1.7309	-.19371
5.471575	717.531	633.859	1001.63	456.559	407.268	484.149	507.993	-.04393	-.19371
5.489776	717.531	633.859	1004.40	456.559	407.268	484.149	507.993	-.46569	-.19371
5.507853	718.599	634.943	1004.40	457.667	407.128	483.736	504.563	-.04393	-.19371
5.525596	719.667	634.943	1002.16	456.559	406.149	484.011	503.466	-.04393	-.19371
5.543711	719.533	631.693	1002.16	454.342	405.030	483.736	503.466	-.04393	-.19371
5.560907	720.601	631.693	1002.03	454.342	406.848	483.736	503.466	-.04393	-.19371
5.580573	721.803	632.234	1002.03	456.559	406.848	483.736	504.563	-.04393	-.19371
5.598312	721.669	634.943	1002.16	456.559	406.009	485.389	505.661	.166944	-.19371
5.616422	721.669	631.693	1000.05	456.559	406.009	484.011	507.993	-.04393	-.19371
5.634163	720.735	629.525	1000.05	456.559	405.030	484.011	508.815	.166944	-.19371
5.660442	721.669	628.442	1000.97	456.559	406.149	486.491	508.267	-.04393	-.19371
5.681947	724.072	629.525	999.916	456.559	405.030	485.389	507.993	-.04393	-.19371
5.700625	720.735	629.525	1000.05	456.559	405.030	484.149	507.993	-.04393	-.19371
5.718711	720.601	631.693	1000.05	456.559	406.009	483.736	508.267	-.04393	-.19371
5.737086	720.601	632.776	1000.05	455.450	407.128	485.389	507.993	-.46569	-.19371
5.755479	719.667	634.943	1002.16	456.559	407.268	486.491	507.993	-.04393	-.19371
5.773837	719.533	634.943	1005.33	457.667	408.386	486.491	508.267	-.04393	-.19371

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-111 CALIBRATION PERFORMED 05-07-79 15:58:13 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 1 FILE NO. 43 LU 14 FROM 97/ 0 TO 129/47 FILE STARTING T.O.D. 16:30:57.090000 T.C.V. ON T.O.D. 16:30:58.270093

PARAMETER	TW-C4		TW-C6		TW-D2		TW-D4		FCALB 31941B	
PARAMETER	TW-C5		TW-D1		TW-D3		FCALA 31941A			
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS	
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48	
5.792159	745.269	657.660	1040.16	458.636	410.064	492.549	509.912	-.04393	-.19371	
5.811543	894.040	761.509	1193.68	467.490	420.676	509.584	514.297	-.46569	-.19371	
5.830895	991.849	735.677	1167.00	416.511	385.974	451.109	486.972	-.04393	-.19371	
5.849737	1064.03	718.779	1171.37	353.662	323.889	375.130	428.417	.166944	-.19371	
5.868085	1071.95	743.714	1173.63	323.784	275.659	325.549	379.057	.166944	-.19371	
5.893853	939.049	691.094	983.239	277.094	217.416	251.530	327.264	-.46569	-.19371	
5.914720	792.190	605.647	805.548	228.608	178.670	203.711	282.232	.166944	-.19371	
5.932979	690.789	556.576	708.605	191.248	153.338	177.828	245.688	.166944	-.19371	
5.951852	622.935	518.162	649.579	159.465	135.479	154.112	211.913	.166944	-.19371	
5.971185	575.453	487.250	605.328	138.928	124.331	138.020	188.569	-.88744	-.19371	
5.990526	540.627	460.611	567.223	129.156	115.730	125.929	171.879	-.04393	-.19371	
6.008939	514.244	436.072	535.332	116.066	106.957	115.009	155.852	-.04393	-.19371	
6.027340	491.319	412.259	506.161	102.897	98.1455	103.620	139.641	-.04393	-.19371	
6.045729	470.229	393.416	482.081	91.8539	91.6486	94.1010	123.208	-.04393	-.19371	
6.064099	450.441	376.351	459.830	80.7467	77.0440	85.2294	108.992	-.04393	-.19371	
6.082433	431.551	362.926	441.933	76.2856	73.0534	79.6636	98.1267	-.04393	-.19371	
6.101794	413.569	351.606	423.136	71.8144	73.8416	74.0816	90.2489	-.04393	-.19371	
6.127932	393.428	333.477	402.033	68.4544	69.2241	69.6046	81.5036	-.46569	-.19371	
6.147299	380.525	321.577	386.191	66.2113	66.9816	67.3625	77.0462	-.04393	-.19371	
6.165618	367.739	311.949	375.373	65.0889	65.1578	66.2405	74.9532	.166944	-.19371	
6.183955	356.624	303.460	363.696	65.0889	64.8770	65.1179	71.4600	-1.5201	-.19371	
6.202334	345.075	296.051	352.286	63.9659	65.1578	63.9947	69.2212	-1.5201	-.19371	
6.221704	333.943	288.156	341.149	62.8423	63.6133	63.9947	67.9608	-1.5201	-.19371	
6.241070	323.655	280.287	332.123	62.8423	62.4894	63.9947	66.4192	-.04393	-.19371	
6.260427	315.907	272.446	321.968	62.8423	62.4894	62.8709	65.9985	.166944	-.19371	
6.278866	308.022	265.748	314.074	62.8423	62.4894	62.8709	65.9985	-.04393	-.19371	
6.297263	302.535	258.517	305.058	62.8423	62.0677	62.8709	63.6135	-.46569	-.19371	
6.315629	294.322	253.526	298.241	60.4527	62.3488	61.7466	63.6135	-.04393	-.19371	
6.334019	286.614	249.100	291.497	62.8423	62.0677	62.8709	63.6135	-1.5201	-.19371	
6.359755	276.561	242.479	282.394	60.4527	62.3488	61.7466	62.4901	.166944	-.19371	
6.379880	270.996	236.977	275.973	62.8423	61.3649	61.7466	62.4901	-.04393	-.19371	
6.397965	267.248	232.037	269.155	60.3121	61.7866	61.7466	62.4901	-.04393	-.19371	
6.416315	262.124	228.202	264.714	61.7181	61.3649	61.7466	62.4901	-.46569	-.19371	
6.434697	255.495	226.013	260.145	60.4527	61.3649	61.7466	62.3497	-.04393	-.19371	
6.453098	250.950	222.733	254.759	60.4527	62.3488	61.7466	62.4901	-1.5201	-.19371	
6.471958	245.592	219.458	250.212	60.4527	62.3488	61.7466	62.3497	-.04393	-.19371	
6.491326	241.069	214.552	244.852	60.4527	62.4894	61.7466	62.3497	-1.5201	-.19371	
6.510713	237.922	211.829	240.875	61.7181	61.3649	61.7466	62.3497	-.88744	-.19371	
6.529659	235.599	208.566	236.085	60.1714	62.4894	61.7466	61.9283	.166944	-.19371	
6.548023	231.778	205.305	232.806	60.1714	61.3649	61.7466	61.3663	-.04393	-.19371	
6.566368	228.099	203.133	228.305	60.4527	61.3649	61.7466	61.9283	.166944	-.19371	
6.592486	222.795	199.876	224.085	61.7181	61.3649	61.7466	61.3663	-.04393	-.19371	
6.613395	220.487	195.538	220.686	60.0308	61.2243	61.7466	61.3663	.166944	-.19371	
6.631764	217.231	194.454	216.478	60.4527	61.3649	61.7466	62.3497	.166944	-.19371	
6.651083	214.114	192.286	214.444	60.0308	61.2243	61.7466	61.3663	.166944	-.19371	
6.670454	210.595	191.203	211.057	61.7181	62.3488	61.7466	62.3497	-.04393	-.19371	
6.688862	207.349	188.495	207.808	61.7181	61.9272	61.7466	62.3497	-.88744	-.19371	
6.707196	205.727	186.870	206.591	60.4527	61.9272	61.7466	61.3663	-.04393	-.19371	
6.725561	203.026	184.704	203.346	60.4527	61.3649	61.7466	61.3663	-.04393	-.19371	

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	F-A	PC-1	PC-2	POJI	POFM	WL02-1	PFJ	PFV-1	PGFT						
PARAMETER	F-8	PC-2	POJ	PGOT	WL02-2	PFVD	PFV-2	PSIA							
UNITS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA						
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
-1.179831	74.7798	77.9111	15.4300	14.8478	14.4459	12.2488	869.903	862.628	.002305	.001797	14.8644	1484.29	1468.71	1470.43	14.2891
-1.083191	71.0059	75.3797	15.1915	15.2702	14.4459	12.2488	781.511	862.198	.208522	.182565	15.0749	1484.29	1467.45	1469.80	14.2891
-.992222	74.7798	77.4892	14.5953	14.8478	14.4459	12.2488	796.278	858.001	4.50542	4.47194	15.0749	1484.29	1467.45	1469.80	13.0222
-.890964	71.8446	76.2235	14.5953	14.8478	14.4459	12.8808	816.386	855.483	3.24827	3.22467	14.3382	1484.93	1467.45	1469.80	14.2891
-.800511	74.7798	76.2235	15.1915	15.2702	14.5531	12.2488	818.376	853.805	3.16170	3.13807	14.3382	1484.93	1467.45	1469.80	14.2891
-.698459	71.0059	76.2235	14.5953	14.8478	14.2316	12.7755	820.261	852.755	3.03153	3.00538	14.3382	1484.93	1468.08	1469.32	14.6059
-.607570	72.2639	77.4892	15.1915	15.2702	14.4459	12.8808	816.910	852.755	3.00779	2.98431	14.3382	1484.93	1467.45	1469.80	13.0222
-.517060	71.2156	75.8016	15.4300	15.2702	14.4459	12.8808	818.166	851.916	2.97652	2.95138	14.3382	1484.93	1467.45	1469.80	14.2891
-.414165	71.2156	76.2235	15.4300	15.2702	14.5531	12.8808	818.585	851.287	2.96690	2.94282	14.3382	1484.93	1467.45	1469.80	14.2891
-.323252	71.0059	75.8016	15.1915	14.8478	14.4459	13.6182	819.737	851.077	2.98133	2.95336	14.0224	1485.09	1467.45	1469.32	13.3389
-.221265	71.8446	77.9111	15.4300	15.2702	14.4459	12.7755	819.214	851.287	2.96510	2.94084	14.6539	1485.25	1467.45	1469.80	14.2891
-.176824	72.2639	76.2235	14.5953	14.8478	14.4459	12.8808	819.632	851.287	2.95488	2.93096	14.2329	1486.37	1467.45	1470.43	14.2891
-.151224	71.0059	74.9578	14.5953	14.8478	14.4459	12.8808	819.632	851.287	2.95548	2.93228	14.6539	1485.25	1467.45	1469.80	14.6059
-.114200	72.6832	77.2783	14.9530	14.8478	14.0172	12.8808	818.166	851.077	2.93624	2.91417	14.2329	1486.37	1467.45	1469.32	14.2891
-.088600	71.2156	75.8016	14.5953	14.8478	14.2316	12.7755	819.737	851.287	2.94646	2.92076	14.2329	1485.25	1467.45	1469.80	14.2891
-.063000	71.2156	75.8016	14.5953	14.8478	14.4459	12.8808	822.984	851.077	2.93564	2.90890	14.2329	1486.37	1467.45	1469.80	13.6557
-.025904	74.7798	77.4892	14.5953	14.8478	14.4459	12.8808	894.620	851.287	2.54605	2.49897	14.0224	1486.37	1467.45	1470.12	13.0222
-.000304	71.2156	75.3797	15.1915	14.8478	14.4459	12.8808	890.011	851.916	1.34662	1.30306	14.2329	1486.37	1467.45	1469.96	13.0222
.036702	72.2639	75.8016	14.5953	14.8478	14.2316	12.8808	846.443	852.755	.338084	.309992	14.3382	1485.25	1467.45	1469.80	13.0222
.062302	72.2639	75.8016	15.4300	14.8478	35.8792	19.6226	854.612	853.595	.211528	.180260	15.9170	1481.42	1463.66	1465.98	14.2891
.099780	69.3286	72.8483	14.5953	14.8478	301.759	53.5421	873.045	853.805	.241889	.230638	19.3903	1468.50	1450.70	1452.62	13.6557
.125380	71.0059	74.5359	15.4300	15.2702	422.643	57.5450	872.836	856.008	.201007	.163797	21.9163	1458.29	1440.59	1442.44	13.0222
.150980	69.3286	73.6921	14.5953	14.8478	412.355	57.4397	846.443	856.113	.179664	.155895	23.4951	1448.08	1430.32	1431.14	14.2891
.187960	68.9093	73.2702	14.5953	15.2702	402.924	57.4397	855.450	857.687	.198902	.149309	25.3896	1435.48	1418.47	1419.69	14.6059
.213560	69.3286	72.8483	14.5953	14.8478	403.889	56.0703	882.052	857.792	.222650	.132517	25.3896	1430.69	1414.04	1415.39	13.6557
.250610	68.4900	72.4264	14.5953	14.8478	406.354	57.4397	871.788	857.792	.222650	.097285	25.3896	1431.65	1415.31	1417.30	14.2891
.276210	70.5866	75.8016	16.1454	15.6926	408.390	57.4397	846.548	858.211	.206117	.087407	26.0212	1434.20	1417.52	1418.42	14.6059
.301810	75.6185	78.9659	17.8148	18.3324	410.747	57.5450	875.768	859.365	.210927	.138773	27.7052	1435.48	1418.15	1420.48	14.2891
.339338	67.6513	72.4264	18.0533	18.3324	411.926	58.2824	882.890	859.470	.218743	.174334	29.1787	1437.87	1420.36	1422.07	14.2891
.364938	75.1992	78.9659	17.4571	18.3324	413.748	59.1251	850.633	859.470	.204313	.169395	30.3365	1438.35	1422.73	1422.71	14.2891
.402039	72.6832	77.2783	17.8148	18.3324	415.677	59.1251	853.984	859.470	.203412	.165114	31.0733	1440.58	1422.89	1424.62	12.3888
.427639	71.2156	75.8016	17.4571	18.3324	417.606	59.1251	885.403	860.310	.213933	.170382	32.1258	1441.86	1424.15	1425.57	14.2891
.464696	74.7798	77.4892	17.3378	18.3324	419.214	57.5450	871.788	859.680	.209724	.138114	32.1258	1441.86	1425.42	1427.48	14.2891
.490296	72.2639	77.2783	17.5763	18.3324	421.250	59.1251	849.376	860.729	.194694	.140419	32.1258	1442.82	1425.42	1427.48	14.2891
.515896	79.3924	82.1301	17.5763	18.3324	422.536	128.123	812.301	860.520	.347704	.316577	32.1258	1443.13	1425.73	1428.44	14.2891
.553442	101.617	105.335	24.7307	22.0281	424.465	275.705	758.470	860.310	2.11859	2.12887	33.3888	1442.82	1426.05	1428.44	14.2891
.579042	252.365	253.000	80.2968	66.4825	424.679	613.530	775.017	859.365	3.87324	3.86082	56.1233	1442.18	1425.26	1427.48	14.2891
.616111	331.198	337.169	104.860	102.489	425.108	665.884	772.504	857.687	4.47445	4.44165	109.802	1435.32	1417.52	1419.21	14.2891
.641711	618.646	615.835	234.832	201.113	421.250	649.135	774.808	857.687	4.50121	4.46272	298.835	1310.09	1383.70	1384.85	14.2891
.667311	1323.11	1317.88	548.673	515.989	414.070	743.520	811.464	856.008	4.30160	4.25759	972.448	1093.45	1356.84	1358.44	13.0222
.704329	1458.14	1468.08	603.762	601.202	415.463	745.206	813.558	855.274	3.66642	3.62407	1199.90	1186.61	1364.74	1366.40	14.2891
.729929	1446.61	1457.95	600.424	597.823	415.677	740.044	809.369	854.434	3.40278	3.37515	1187.16	1213.25	1364.58	1363.69	14.2891
.767025	1445.14	1454.56	602.212	594.550	415.784	738.358	809.578	853.805	3.33004	3.30765	1173.48	1203.20	1359.69	1360.03	14.2891
.792625	1443.88	1454.38	604.001	595.289	415.463	738.358	809.578	853.805	3.32493	3.29909	1174.11	1203.20	1356.53	1357.33	13.0222
.830123	1443.46	1452.89	606.028	594.444	408.604	737.516	811.464	852.755	3.31320	3.29085	1168.74	1197.94	1354.63	1354.78	14.2891
.855723	1436.33	1446.14	606.028	591.065	258.785	734.672	806.845	852.965	3.30899	3.28789	1164.85	1194.11	1354.63	1356.22	13.0222
.881323	1435.91	1444.45	608.055	591.065	129.543	734.882	809.369	852.755	3.31531	3.29053	1175.37	1203.20	1354.63	1356.22	13.3389
.918322	1439.90	1449.51	610.201	592.754	81.9608	736.673	809.578	852.755	3.32012	3.29349	1185.27	1213.41	1355.89	1357.17	14.2891
.943922	1436.33	1446.14	609.486	591.065	66.8503	734.145	806.855	852.651	3.30839	3.28526	1181.27	1210.70	1356.53	1357.33	13.0222

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	F-A	PC-1	POJI	POFM	WLO2-1	PFJ	PFV-1	PGFT							
PARAMETER	F-B	PC-2	POJ	PGOT	WLO2-2	PFVD	PSIA	PSIA							
UNITS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA							
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
981017	1436.33	1444.45	608.770	591.065	58.2770	734.250	806.646	852.651	3.31080	3.28526	1169.48	1197.78	1356.21	1357.33	14.2891
1.006617	1432.98	1444.24	608.055	589.270	55.7050	733.302	806.018	852.651	3.31531	3.28723	1163.80	1192.84	1356.53	1357.33	13.0222
1.032217	1432.14	1440.86	606.863	589.059	51.4183	731.722	806.332	851.916	3.31531	3.28559	1157.27	1186.45	1355.89	1357.17	14.6059
1.069761	1432.56	1441.07	608.055	589.059	47.2388	733.302	807.903	851.916	3.32583	3.30106	1151.80	1181.35	1355.74	1356.22	14.2891
1.095361	1432.98	1442.55	608.055	588.848	44.4525	732.565	806.332	851.811	3.32763	3.29909	1150.32	1180.07	1355.74	1356.22	12.3888
1.132443	1432.14	1440.86	608.532	589.059	41.9877	733.302	808.322	851.077	3.32763	3.29975	1147.69	1176.40	1354.95	1356.85	13.6557
1.158043	1432.98	1441.07	608.055	589.059	40.3802	733.302	807.484	851.077	3.33004	3.30370	1147.17	1175.45	1355.26	1356.53	14.2891
1.195103	1431.30	1440.86	606.624	588.214	38.5584	731.617	805.389	850.972	3.32523	3.29909	1144.22	1172.58	1354.95	1356.53	14.2891
1.220703	1430.88	1439.18	604.716	587.686	38.0225	730.247	805.180	851.077	3.32012	3.28789	1140.43	1169.86	1355.89	1356.85	13.0222
1.246303	1430.46	1440.86	605.193	588.531	37.5939	731.617	806.227	851.077	3.32012	3.29184	1138.32	1166.83	1355.89	1356.85	13.0222
1.283840	1433.82	1444.24	605.909	589.270	37.2724	733.302	807.065	850.972	3.32493	3.29909	1136.85	1166.03	1355.89	1356.85	14.2891
1.309440	1431.30	1440.86	604.716	588.003	37.3795	731.617	806.646	851.077	3.32252	3.29316	1136.85	1164.92	1355.89	1357.17	14.2891
1.346493	1434.24	1444.24	604.239	589.270	37.1652	733.302	808.007	850.972	3.32282	3.29514	1136.85	1164.92	1355.74	1356.22	12.3888
1.372093	1436.33	1444.24	604.716	589.270	37.1652	733.407	808.950	850.972	3.32763	3.30106	1135.06	1164.76	1355.89	1357.17	14.2891
1.397693	1434.24	1441.50	603.047	589.059	37.3795	731.722	806.227	850.972	3.32523	3.29909	1134.11	1164.76	1355.74	1356.22	14.2891
1.434699	1434.66	1444.24	603.047	589.270	36.9509	733.302	807.903	850.972	3.32102	3.29349	1133.27	1163.48	1355.89	1356.85	14.2891
1.460299	1435.91	1444.24	602.808	589.270	37.1652	733.407	808.531	850.972	3.32012	3.29053	1133.06	1162.37	1355.89	1357.17	12.3888
1.497334	1434.24	1444.24	601.854	589.059	37.1652	733.302	807.903	850.972	3.32012	3.29053	1133.06	1162.37	1355.89	1356.85	12.3888
1.522934	1434.86	1444.24	601.139	589.059	37.1652	732.459	806.855	850.972	3.32042	3.29184	1132.85	1162.37	1355.89	1357.17	13.6557
1.560465	1435.07	1444.24	600.901	589.481	36.9509	733.302	807.903	850.972	3.32012	3.28789	1132.64	1162.21	1355.89	1356.53	14.2891
1.586065	1435.91	1444.45	600.662	589.270	36.8437	733.302	807.693	850.972	3.32162	3.29184	1133.06	1162.21	1355.89	1357.81	12.3888
1.611665	1436.75	1445.93	600.424	589.481	37.1652	733.302	808.741	850.972	3.32012	3.28921	1132.43	1162.21	1355.89	1357.17	13.0222
1.648755	1435.49	1444.24	599.470	590.220	36.5222	733.302	807.693	850.972	3.32012	3.28987	1131.69	1162.21	1355.89	1357.49	12.3888
1.674355	1435.49	1444.24	598.754	589.059	36.9509	731.617	806.332	850.972	3.31561	3.28921	1131.59	1162.21	1355.89	1357.17	14.2891
1.711403	1435.91	1444.24	599.231	589.270	36.7365	733.302	807.484	850.972	3.31320	3.28526	1131.69	1162.21	1355.89	1357.17	14.2891
1.737003	1435.91	1444.45	598.277	589.270	36.7365	733.302	807.903	850.972	3.30839	3.28262	1132.43	1162.37	1355.89	1357.17	14.2891
1.762603	1438.85	1447.61	598.993	591.065	36.5222	733.407	808.741	850.972	3.31771	3.28855	1131.69	1162.21	1355.89	1356.85	14.2891
1.869518	1439.69	1449.30	598.993	591.382	13.6957	734.145	808.741	850.972	3.31531	3.28526	1138.32	1167.15	1370.43	1371.17	13.0222
1.959955	1438.85	1447.82	597.800	591.065	14.0172	733.302	807.903	850.972	3.30719	3.27933	1136.85	1166.03	1366.01	1366.72	13.0222
2.061959	1439.69	1448.25	597.323	591.171	14.4459	733.302	808.007	850.972	3.30839	3.28131	1132.85	1162.37	1363.48	1363.69	14.2891
2.152401	1439.69	1449.51	597.085	591.171	14.4459	733.302	808.741	850.972	3.31290	3.28262	1130.54	1162.21	1362.06	1361.94	14.2891
2.250609	1443.46	1450.78	598.039	592.754	14.0172	734.672	809.369	850.972	3.32012	3.28921	1130.12	1159.65	1362.06	1360.99	13.0222
2.343818	1440.53	1449.93	596.846	591.382	14.2316	734.145	809.683	851.077	3.32012	3.29316	1130.12	1159.81	1360.00	1360.99	14.2891
2.434267	1439.69	1449.51	596.131	591.171	14.4459	733.302	807.903	851.077	3.31561	3.28262	1130.12	1159.81	1359.69	1360.99	14.2891
2.533179	1439.69	1447.82	595.415	591.065	14.0172	731.933	807.274	850.972	3.30839	3.27801	1127.59	1158.38	1359.69	1360.67	12.3888
2.624028	1436.33	1445.29	594.223	589.270	14.0172	729.931	805.180	850.972	3.30569	3.27801	1127.17	1156.62	1359.69	1360.67	14.2891
2.724527	1438.01	1447.82	594.462	590.326	14.4459	731.617	807.903	851.077	3.31080	3.28131	1126.96	1156.30	1359.69	1360.35	14.2891
2.814933	1438.43	1447.61	595.177	591.085	14.0172	732.459	807.484	851.077	3.31531	3.28295	1126.96	1156.30	1360.00	1361.15	12.3888
2.905812	1439.90	1448.25	595.415	591.065	14.0172	733.302	808.531	851.077	3.31531	3.28559	1126.54	1155.98	1359.69	1360.67	14.2891
3.007275	1437.59	1447.82	594.462	589.270	14.1244	730.774	806.018	851.077	3.30719	3.27867	1126.12	1155.98	1359.69	1360.99	13.6557
3.097139	1440.53	1449.93	594.581	591.171	14.5531	732.459	807.484	851.077	3.31561	3.28657	1126.12	1155.03	1359.69	1360.67	14.2891
3.199082	1438.22	1447.82	593.985	589.692	14.4459	731.617	806.646	851.077	3.30960	3.27999	1124.96	1154.71	1359.69	1360.35	14.2891
3.289516	1443.46	1451.62	595.535	591.382	14.2316	733.407	808.741	851.077	3.32012	3.29053	1126.33	1155.03	1359.69	1360.99	14.2891
3.388168	1439.69	1448.67	593.627	591.065	14.0172	731.617	806.227	851.077	3.30899	3.28196	1124.96	1155.35	1359.69	1360.67	14.2891
3.481456	1443.46	1449.51	595.415	591.171	14.4459	733.302	808.531	850.972	3.31621	3.28723	1124.96	1154.71	1360.00	1361.62	14.2891
3.571927	1438.85	1447.61	593.508	589.481	14.0172	730.037	804.970	850.972	3.30659	3.27867	1124.64	1154.71	1359.69	1360.67	14.2891
3.673760	1443.46	1450.78	595.177	592.015	14.1244	732.565	808.741	851.077	3.32012	3.28723	1124.85	1154.71	1360.00	1361.94	14.2891
3.764189	1443.46	1450.78	594.938	591.065	13.6957	731.722	807.484	851.077	3.31020	3.27999	1124.43	1154.55	1360.00	1361.62	14.2891
3.863601	1443.88	1452.89	595.535	591.171	14.4459	733.302	807.693	851.077	3.31561	3.28789	1124.85	1154.55	1362.06	1360.99	14.2891



## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	F-A	PC-1	POJI	POFM	WLO2-1	PFJ	PFV-1	PGFT							
PARAMETER	F-R	PC-2	POJ	PGOT	WLO2-2	PFVD	PFV-2								
UNITS	LRS	PSIA	PSIA	PSIA	LB-W	PSIA	PSIA	PSIA							
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
3.954068	1440.53	1449.93	594.462	591.065	13.6957	731.617	807.484	851.077	3.30899	3.28032	1124.54	1154.71	1360.32	1361.62	14.2891
4.044620	1443.46	1451.20	594.581	591.065	13.6957	732.565	808.322	851.077	3.31200	3.28723	1124.43	1154.55	1362.06	1360.99	14.2891
4.145563	1444.72	1452.89	595.415	592.754	13.6957	733.407	808.531	850.972	3.32012	3.28987	1124.01	1154.55	1362.06	1361.15	14.2891
4.236007	1443.46	1451.62	595.415	591.171	14.4459	733.302	807.903	851.077	3.32012	3.29184	1123.80	1154.55	1362.06	1361.31	14.2891
4.338390	1444.72	1452.89	595.892	592.754	14.0172	733.407	808.322	851.077	3.32523	3.29514	1123.59	1154.55	1362.06	1360.99	14.2891
4.428810	1443.46	1450.78	594.581	591.065	13.6957	731.617	807.065	851.077	3.31531	3.28526	1123.38	1153.27	1362.06	1361.62	14.2891
4.526400	1440.94	1450.36	594.223	591.065	14.0172	731.617	806.332	851.077	3.31561	3.28723	1123.38	1154.55	1362.06	1360.99	14.2891
4.619167	1439.69	1449.51	593.985	591.065	13.6957	731.617	805.494	851.077	3.30960	3.27933	1122.43	1153.27	1362.06	1361.15	14.2891
4.709675	1443.88	1454.36	595.177	591.910	14.2316	733.302	808.007	851.077	3.32042	3.29184	1123.38	1154.55	1362.06	1360.99	12.3888
4.812306	1362.95	1371.88	544.977	561.605	14.4459	680.737	855.660	851.077	3.25759	3.21743	1117.70	1159.65	1362.06	1361.94	14.2891
4.906254	302.893	307.847	116.546	127.409	14.4459	156.881	870.322	853.595	.903528	.876333	128.747	1459.57	1438.69	1440.05	14.2891
5.005469	94.0689	97.7405	24.9692	33.5377	14.0172	82.7213	904.255	856.113	.916154	.772284	48.7556	1455.90	1437.11	1439.25	14.2891
5.098036	81.0697	84.6615	16.5031	23.4008	14.4459	53.9634	829.791	857.792	.694004	.696223	32.7573	1456.22	1437.74	1439.25	13.6557
5.191986	79.3924	84.0287	15.4300	21.1834	14.4459	51.5406	894.620	859.365	.674465	.593492	30.3365	1458.29	1439.32	1440.05	14.2891
5.296144	77.9248	82.5520	15.5492	20.0219	14.4459	50.6979	852.099	860.310	.549712	.527309	33.1783	1458.45	1440.43	1441.16	14.2891
5.388119	75.6185	80.6535	13.2837	18.3324	14.0172	49.0125	886.765	860.520	.525664	.479894	31.0733	1458.77	1440.59	1443.07	14.2891
5.490314	75.1992	80.6535	13.2837	16.7485	14.4459	48.1697	877.548	861.149	.424359	.327772	30.8628	1461.00	1442.96	1443.39	12.3888
5.585207	75.6185	80.6535	13.0452	16.6429	14.0172	49.0125	861.315	861.359	.427365	.348846	32.1258	1461.00	1443.12	1444.98	14.2891
5.684929	75.6185	77.9111	13.5221	15.9038	14.4459	49.1178	891.896	861.884	.420150	.393626	33.7046	1461.32	1444.38	1445.14	14.2891
5.778948	74.7798	77.9111	13.6414	15.7982	13.6957	49.0125	850.633	861.988	.415340	.374529	35.4938	1462.60	1445.49	1445.94	14.2891
5.872908	75.6185	77.4892	13.6414	15.7982	13.6957	49.1178	881.423	862.723	.387083	.385065	36.9674	1462.60	1445.64	1447.84	14.2891
5.977613	76.0378	80.6535	13.5221	14.8478	14.1244	49.1178	842.464	862.723	.371752	.371894	38.8619	1462.92	1445.64	1447.84	14.6059
6.070573	74.7798	77.4892	13.5221	14.6367	14.4459	49.8552	893.363	862.723	.372654	.285626	39.2829	1464.83	1446.91	1448.48	14.2891
6.172233	75.6185	78.3330	13.5221	14.8478	14.2316	49.3285	846.443	862.723	.363035	.365968	39.4934	1464.67	1447.22	1448.80	14.2891
6.267108	74.7798	77.4892	13.0452	14.4255	14.5531	49.8552	891.896	862.723	.372053	.327772	40.9670	1466.11	1447.22	1448.96	14.2891
6.359568	74.7798	78.9659	13.5221	14.4255	14.5531	50.6979	847.281	862.723	.338084	.306699	40.3354	1465.95	1447.54	1449.44	14.2891
6.459846	72.6832	77.2783	13.0452	14.4255	14.5531	50.6979	892.525	862.723	.318845	.281675	41.1775	1466.11	1447.86	1450.07	13.0222
6.553819	75.1992	77.9111	13.2837	14.4255	14.5531	49.1178	853.984	862.723	.369347	.315919	40.7564	1465.95	1448.49	1451.03	14.2891
6.657515	72.6832	77.2783	13.2837	14.4255	14.5531	50.6979	891.896	862.723	.357624	.329748	41.5985	1466.11	1449.28	1450.07	14.2891
6.750464	74.7798	77.4892	13.2837	14.2143	14.4459	50.6979	859.640	861.988	.338084	.245456	40.7564	1467.22	1449.44	1450.71	14.2891
6.853163	74.7798	75.8016	13.6414	14.2143	14.4459	49.1178	887.079	862.723	.275558	.301102	40.4407	1468.50	1449.44	1451.34	14.2891
6.947119	72.6832	77.2783	13.2837	14.2143	14.4459	50.6979	869.903	861.988	.275558	.257968	40.3354	1468.50	1450.54	1450.71	14.2891
7.039579	72.2639	77.2783	13.2837	14.2143	14.4459	50.6979	846.862	862.723	.256319	.212529	39.9144	1468.50	1450.54	1451.34	14.2891
7.141822	72.6832	77.4892	13.5221	14.2143	14.2316	49.8552	885.194	861.988	.271048	.227017	39.5987	1468.50	1450.54	1451.34	12.3888
7.236231	71.2156	74.5359	13.5221	14.2143	14.4459	50.6979	849.795	862.723	.266239	.227017	39.7039	1468.66	1450.70	1452.62	14.2891
7.338828	71.2156	74.5359	13.5221	14.2143	14.4459	50.6979	887.498	861.988	.170044	.227017	39.2829	1468.98	1450.70	1452.62	14.2891
7.432902	71.2156	77.2783	13.5221	14.9534	14.0172	50.6979	863.305	861.988	.261429	.138114	38.8619	1468.66	1451.02	1453.25	14.2891
7.526827	71.2156	75.8016	13.5221	14.2143	14.4459	50.6979	852.727	861.884	.167639	.110456	37.8094	1469.78	1451.81	1452.30	13.0222
7.627139	72.6832	77.2783	13.0452	14.2143	14.4459	50.6979	881.423	861.884	.172449	.140090	37.9146	1468.98	1451.33	1452.78	13.6557
7.722045	72.6832	77.2783	12.8067	14.4255	14.5531	50.6979	853.984	861.569	.188982	.125602	36.9674	1469.78	1453.07	1452.62	12.3888
7.823788	74.7798	77.2783	13.5221	14.4255	14.4459	13.5128	881.633	861.988	.157719	.053822	29.3892	1469.94	1453.07	1453.25	12.3888
7.917205	74.7798	75.8016	13.2837	14.4255	14.5531	13.0915	873.883	861.569	.212129	.140090	19.3903	1471.05	1453.07	1453.25	14.2891
8.017551	71.0059	74.5359	13.2837	14.2143	14.4459	12.8808	858.383	861.569	.107217	.003773	15.7065	1471.05	1453.07	1453.89	14.2891
8.115433	72.2639	73.6921	13.2837	14.9534	14.2316	12.8808	881.738	861.569	.098499	.028797	14.6539	1471.05	1453.07	1453.89	14.2891
8.207910	74.7798	75.8016	13.2837	14.4255	14.5531	12.8808	865.086	861.359	.095193	.032748	14.6539	1471.21	1453.07	1454.05	14.2891

END FILE

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	PFJC	PFVC-1		TOJ		TOBL		TFVI		TTCVI		TRCAO		TH201		PH20-OUT
PARAMETER	PFVCD	PFVC-2		TOFM		TFJ		TTCJ		TRCAO		TH201		PSIA		
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88	
-1.179831	15.3427	1376.56	1382.74	1379.06	-73.873	-285.53	-280.26	64.0028	67.5402	71.2036	67.5024	65.9990	35.7236	63.0825	93.9446	
-1.083191	15.3427	1376.56	1381.89	1379.69	-74.258	-285.43	-277.57	64.0312	67.5402	71.3458	67.5024	65.9150	35.7236	63.2374	93.4703	
-.992222	15.3427	1376.56	1381.89	1379.69	-74.643	-285.43	-273.26	64.0028	67.5977	71.1750	67.4460	65.8030	35.5764	63.3359	92.9959	
-.890964	15.3427	1376.56	1381.47	1378.85	-74.258	-285.24	-276.44	64.0028	67.4827	71.1750	67.3051	65.8590	35.5469	63.2938	96.6720	
-.800511	15.3427	1376.56	1381.89	1379.69	-76.014	-285.43	-276.44	64.0312	67.4252	71.2889	67.5306	65.3268	35.6058	63.3218	95.8419	
-.698459	15.3427	1376.56	1381.47	1379.06	-70.505	-285.43	-277.99	64.0312	67.3677	71.3458	67.5306	66.2089	35.6647	63.0261	91.3358	
-.607570	15.3427	1376.56	1381.47	1378.85	-71.143	-284.98	-276.58	64.0312	67.3677	71.2889	67.4460	65.9990	35.7826	63.1389	93.2331	
-.517060	15.3427	1376.56	1381.47	1378.85	-71.143	-284.98	-276.44	64.0312	67.7413	71.2319	67.5024	65.9150	35.4290	63.0120	93.9446	
-.414165	15.3427	1376.56	1381.47	1378.21	-71.143	-284.91	-278.70	64.0028	67.5402	71.1750	67.5024	65.9990	35.6058	63.7159	92.8773	
-.323252	15.3427	1376.56	1381.47	1379.06	-70.505	-284.91	-280.54	64.0312	67.3677	71.3458	67.3896	65.9990	35.6647	63.2374	92.8773	
-.221265	15.3427	1376.56	1381.89	1379.69	-70.165	-284.91	-278.70	64.0312	67.5402	71.2889	67.5024	65.7471	35.5469	63.2514	92.8773	
-.176824	15.1847	1376.56	1381.47	1378.85	-69.952	-284.91	-278.13	64.0312	67.7413	71.2889	67.5306	65.9990	35.4879	63.2938	92.0473	
-.151224	15.1847	1376.56	1381.47	1378.85	-69.867	-284.91	-278.63	64.0312	67.4252	71.3458	67.5306	65.8870	35.6647	63.3640	93.8260	
-.114200	15.3427	1376.56	1381.47	1378.85	-69.188	-284.91	-278.27	64.0312	67.5402	71.3458	67.5024	66.6426	35.5469	63.2374	94.7747	
-.088600	15.1847	1376.56	1381.47	1378.85	-69.528	-284.91	-277.99	64.0312	67.7413	71.3458	67.5024	65.7190	35.4879	63.3218	92.9959	
-.063000	15.3427	1376.56	1381.47	1378.85	-69.485	-284.91	-277.99	64.0312	67.7413	71.3458	67.5024	65.7471	35.4879	63.3640	93.3517	
-.025904	15.3427	1376.56	1381.47	1378.85	-69.485	-284.91	-278.70	64.0312	67.7413	71.3458	67.3051	65.9990	35.5469	63.4626	95.7233	
-.000304	15.1847	1376.56	1381.47	1378.85	-70.845	-284.85	-276.58	64.0312	67.7413	71.3458	67.3051	63.5178	35.4879	63.2514	92.8773	
.036702	15.3427	1376.56	1381.47	1378.85	-68.806	-284.91	-275.88	64.0882	67.7413	71.2036	67.3051	66.5587	35.3700	63.1389	91.4543	
.062302	27.9760	1376.56	1381.26	1378.85	-59.208	-284.98	-276.37	64.4579	67.3677	71.1750	67.4460	66.0269	35.4290	63.2514	92.8773	
.099780	64.6127	1376.56	1381.26	1378.00	-22.462	-284.85	-275.74	64.5432	67.2814	71.2036	67.1641	65.9990	35.3111	63.2374	93.8260	
.125380	78.5094	1377.62	1381.47	1379.06	-4.2880	-284.98	-275.46	64.7138	66.8499	71.2889	66.8820	65.9990	35.6647	63.3218	92.8773	
.150980	81.3519	1376.56	1381.47	1378.85	3.90390	-284.91	-275.46	64.5432	66.4471	71.3458	66.5435	65.9990	35.5469	64.2645	92.1658	
.187960	83.4048	1376.56	1381.47	1379.06	9.19385	-284.98	-275.88	64.4579	65.6982	71.2889	65.7247	65.6911	35.4879	63.2938	92.8181	
.213560	82.2994	1376.56	1381.26	1378.85	12.2904	-284.98	-275.32	64.0882	65.2370	71.4026	65.1878	65.7471	35.5469	63.4626	92.1658	
.250610	98.5649	1376.35	1379.79	1378.00	15.3769	-284.98	-275.60	64.0028	64.9775	71.2889	65.0748	65.7190	35.5469	63.1810	92.8181	
.276210	399.712	1344.32	1365.07	1363.22	17.3438	-284.98	-274.92	63.5191	64.9775	71.2889	65.0748	65.7190	35.5469	63.2374	91.9287	
.301810	902.046	1157.64	1324.26	1322.66	19.2345	-284.98	-274.92	63.4622	64.7757	71.3458	65.0748	65.7750	35.3700	63.3500	91.9287	
.339338	903.309	928.825	1312.48	1310.63	20.8648	-284.98	-274.78	63.3483	64.7468	71.3458	64.5656	65.7471	35.4290	63.3500	91.9287	
.364938	838.879	880.785	1332.67	1329.21	22.4207	-284.98	-274.78	63.1774	64.6026	71.1750	64.5940	65.7471	35.5469	63.3640	90.9207	
.402039	828.773	875.307	1330.57	1327.52	23.8659	-284.91	-274.37	63.0920	64.6026	70.3782	64.5656	65.9990	35.5469	63.3500	92.8773	
.427639	826.404	874.464	1324.05	1320.76	24.7927	-285.01	-273.67	62.6646	64.7468	69.8085	64.5940	66.0269	35.4290	63.3500	94.4189	
.464696	822.614	869.196	1321.31	1319.07	25.6828	-284.85	-273.05	62.3226	64.7757	69.1812	64.5940	65.7750	35.4879	63.2374	92.8181	
.490296	821.666	868.986	1324.26	1322.66	26.5364	-284.98	-273.05	62.1801	64.6026	68.5536	64.5940	66.1110	35.4290	63.4344	92.2844	
.515896	822.614	868.986	1325.73	1322.66	-12.408	-284.98	-272.29	61.8093	64.9775	68.0968	64.5940	65.9850	35.4290	63.1389	93.3517	
.553442	822.614	869.407	1327.62	1325.20	-212.59	-284.98	-272.16	61.5810	64.9775	67.6968	64.6788	65.9990	35.4879	63.1246	98.0950	
.579042	823.245	870.671	1328.05	1325.62	-270.65	-284.98	-272.29	63.5191	64.7468	67.3539	64.4525	66.0269	35.3111	63.4626	92.9959	
.616111	823.561	870.882	1329.10	1325.62	-263.82	-284.91	-272.16	68.7965	64.0831	67.0681	63.8865	65.8030	35.4879	63.3640	94.6561	
.641711	828.931	874.885	1329.31	1325.83	-263.95	-285.01	-272.02	72.5776	60.3502	66.8679	60.0268	66.0269	35.5469	63.4063	95.6641	
.667311	863.988	903.541	1327.62	1326.89	-266.41	-284.98	-271.95	67.1545	57.0950	66.7821	56.8342	65.9850	35.9594	63.2374	95.7233	
.704329	892.413	934.303	1328.05	1325.83	-267.09	-284.98	-272.29	65.8215	61.0459	66.4961	60.9366	65.9990	36.4305	64.6158	94.5375	
.729929	899.519	941.888	1329.10	1325.62	-268.18	-285.01	-273.05	64.4863	61.2777	66.5533	61.1639	65.8730	37.3132	63.3218	96.6720	
.767025	899.519	942.731	1328.05	1325.62	-270.10	-284.98	-273.12	62.7216	60.8141	66.5533	60.6524	65.7190	38.7821	63.2514	96.9092	
.792625	899.519	942.309	1327.62	1325.62	-270.10	-284.98	-272.16	62.1801	61.2777	66.3816	61.1071	65.8030	40.2482	63.3500	97.5614	
.830123	899.519	942.309	1327.41	1323.93	-269.97	-284.98	-272.16	61.6952	62.4358	66.4961	62.2427	66.2789	41.9453	63.2374	95.8419	
.855723	899.519	941.888	1327.41	1324.14	-270.65	-285.01	-273.05	62.1801	63.3611	66.3816	63.3767	71.3560	43.2302	63.3640	95.6641	
.881323	897.151	941.888	1327.41	1323.93	-272.03	-285.01	-272.50	62.8641	64.1407	66.2672	64.1130	79.9877	44.4548	63.4767	96.1384	
.918322	897.151	941.888	1327.41	1323.51	-273.13	-285.01	-271.95	63.5191	64.5449	66.3244	64.5940	91.1702	45.6776	63.4063	95.1897	
.943922	896.993	939.781	1327.41	1323.09	-273.68	-285.01	-271.95	63.7752	65.0064	66.1527	65.0748	97.8399	46.4915	63.1246	96.6720	



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	PFJC	PFVC-1		TOJ		TORL		TFVI		TTCVI		TRCFU		TH20I		PH20-OUT
PARAMETER		PFVCD		PFVC-2		TOFM		TFJ		TTCJ		TRCAU		TH20I		PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88	
.981017	896.993	939.781	1324.68	1323.93	-273.06	-285.01	-272.02	63.4622	65.2370	66.3244	65.1313	104.499	47.5369	63.2374	96.1384	
1.006617	895.887	938.938	1325.94	1323.93	-273.68	-285.43	-272.02	63.7752	65.2370	66.1527	65.0748	109.395	47.9431	63.7159	96.6127	
1.032217	894.308	939.359	1327.41	1322.66	-274.72	-285.27	-271.40	64.0028	65.2370	66.1527	65.2443	112.078	48.4070	63.7159	96.6720	
1.069761	894.308	938.306	1325.94	1323.93	-274.51	-285.43	-271.95	64.0028	65.2370	66.1527	65.0748	114.290	48.8706	63.2938	97.6207	
1.095361	894.308	938.095	1325.73	1322.66	-273.06	-285.50	-272.02	64.0312	65.2370	66.3244	65.0748	115.771	49.2181	63.3640	94.6561	
1.132443	894.308	938.306	1325.73	1322.66	-274.79	-285.53	-271.40	64.4579	65.2370	66.1527	65.0748	116.180	49.5657	63.8143	94.3004	
1.158043	894.308	938.306	1325.73	1322.66	-274.79	-285.53	-271.95	64.4579	65.2370	66.2672	65.0748	117.460	49.7971	63.3640	94.6561	
1.195103	893.992	938.095	1324.68	1323.09	-275.19	-285.50	-271.19	64.4579	65.2082	66.2672	65.1313	118.303	49.9708	64.1379	98.5694	
1.220703	893.992	938.095	1325.73	1322.66	-275.89	-285.53	-271.40	64.4579	65.2370	66.3244	65.0748	119.041	50.2599	63.2514	99.4587	
1.246303	894.308	938.306	1325.73	1322.66	-275.19	-285.53	-272.02	64.4579	65.2082	66.3816	65.0748	119.790	50.4913	63.4063	96.6127	
1.283840	894.308	938.306	1325.73	1322.66	-276.03	-285.53	-271.47	64.4579	65.0064	66.4102	65.0748	120.934	50.7225	63.0120	96.7906	
1.309440	893.992	937.674	1325.94	1323.51	-277.15	-285.53	-271.95	64.4579	65.0064	66.4102	65.0748	121.564	50.8381	63.1389	96.7906	
1.346493	893.992	938.095	1325.10	1323.09	-277.86	-285.53	-271.95	64.4579	64.9775	66.4961	64.7920	122.312	50.9537	63.4626	96.1384	
1.372093	893.992	938.095	1327.41	1322.66	-277.01	-285.53	-270.92	64.4579	64.9775	66.5533	64.7920	122.941	51.2426	63.3500	96.6127	
1.397693	893.992	938.095	1325.73	1322.66	-277.50	-285.96	-271.47	64.4579	64.9775	66.6391	65.0748	123.452	51.2426	63.7159	96.6127	
1.434699	893.992	937.674	1325.73	1322.66	-277.71	-285.96	-270.92	64.4579	64.7468	66.7249	64.5940	124.199	51.3581	63.3218	95.8419	
1.460299	893.992	938.095	1325.73	1322.66	-276.73	-286.02	-270.92	64.4579	64.9775	66.7821	64.5940	124.722	51.5314	63.3640	96.6720	
1.497334	893.676	938.306	1325.73	1322.66	-277.57	-286.02	-270.92	64.4579	64.9775	66.7821	64.5656	125.664	51.6469	63.1810	96.6127	
1.522934	893.992	938.095	1325.73	1322.66	-278.63	-286.02	-270.92	64.2304	64.9775	66.9537	64.5656	125.454	51.6469	63.7159	96.6127	
1.560465	893.676	938.306	1324.68	1323.09	-278.70	-286.02	-270.92	64.2304	64.6026	67.0109	64.4525	125.859	51.8777	63.1810	96.6127	
1.586065	894.308	938.306	1325.94	1323.51	-278.28	-286.05	-271.47	64.2304	64.5449	67.0681	64.5091	126.186	52.0509	63.1246	96.6127	
1.611665	893.992	938.095	1325.73	1322.66	-278.63	-286.05	-271.40	64.0312	64.5449	67.3539	64.4525	126.591	52.1086	63.0684	95.6641	
1.648755	893.992	938.095	1325.73	1322.66	-279.20	-286.05	-270.85	64.0312	64.5449	67.3539	64.3676	126.904	52.1086	63.0120	96.6127	
1.674355	893.992	938.095	1325.73	1322.66	-278.84	-286.05	-271.40	64.0312	64.5449	67.4111	64.3676	127.022	52.1375	63.2938	95.1897	
1.711403	893.676	938.306	1325.94	1323.51	-278.99	-286.05	-270.85	64.0312	64.5160	67.5255	64.3394	127.322	52.1086	63.1246	95.7233	
1.737003	893.992	938.095	1327.41	1322.66	-279.70	-286.54	-271.95	64.0028	64.5160	67.4111	64.3394	127.217	52.2239	63.2514	96.6127	
1.762603	893.992	938.095	1325.73	1322.66	-278.99	-286.05	-271.40	64.0028	64.5160	67.5255	64.1130	127.426	52.2816	63.2374	95.6641	
1.869518	894.308	938.306	1325.73	1322.66	-279.20	-286.32	-270.85	64.4579	65.2370	67.7540	65.0748	127.843	52.5988	63.1246	97.0871	
1.959955	894.308	938.306	1325.94	1323.51	-278.99	-286.67	-269.95	64.0312	64.5160	68.1540	64.2828	128.156	52.7430	63.3218	97.5614	
2.061959	894.308	938.306	1325.94	1323.51	-279.70	-286.80	-269.20	63.6330	63.8232	68.4394	63.6600	128.404	52.8006	64.1379	95.7233	
2.152401	894.308	939.359	1325.94	1323.51	-279.70	-286.61	-268.72	63.3198	63.5921	68.4394	63.4334	128.899	53.0889	63.2374	96.6127	
2.250609	894.308	939.359	1325.94	1323.51	-279.70	-286.80	-268.10	63.3198	63.3611	68.6677	63.4617	128.990	53.0889	62.9135	97.6207	
2.343818	894.308	939.781	1324.26	1323.09	-280.12	-287.00	-268.65	63.1205	63.3900	69.1812	63.2634	129.198	53.4922	63.1810	96.6127	
2.434267	894.308	939.781	1325.94	1323.51	-279.70	-287.00	-267.55	63.0920	63.2164	69.1812	63.2634	129.407	53.5209	63.4626	94.8933	
2.533179	894.308	939.781	1325.94	1323.51	-278.63	-287.07	-267.07	63.0920	63.1586	69.1812	62.9800	129.211	53.5209	63.2514	96.6127	
2.624028	894.308	938.306	1325.10	1323.51	-280.41	-287.10	-264.34	62.6646	63.1298	69.3523	62.9233	129.407	53.5209	63.1246	96.1977	
2.724527	894.308	939.781	1325.94	1323.51	-279.55	-287.10	-261.63	62.6361	62.8985	69.5803	62.7531	129.550	53.5209	63.3500	96.1384	
2.814933	894.308	939.781	1325.73	1322.66	-286.70	-287.10	-261.02	62.6361	62.6672	69.6088	62.5547	128.717	53.5209	63.2374	95.9605	
2.905812	894.308	939.781	1325.94	1323.51	-280.98	-287.33	-259.93	62.2656	62.6672	69.9224	62.4129	129.003	53.7225	63.2093	96.6720	
3.007275	894.308	939.781	1325.10	1323.51	-279.70	-287.36	-258.92	62.1801	62.2332	69.8085	62.1860	129.316	53.8952	63.1810	97.6207	
3.097139	894.308	939.781	1325.94	1323.93	-280.41	-287.62	-257.84	62.1801	62.2043	69.9224	61.8738	129.420	53.7513	63.0261	96.6127	
3.199082	894.308	939.781	1325.10	1323.93	-280.41	-287.52	-256.77	61.7523	62.0017	70.1503	61.8738	129.407	53.8952	62.9135	98.6879	
3.289516	895.887	939.781	1324.68	1323.51	-280.34	-287.59	-255.83	61.6382	61.7701	70.0364	61.6183	129.407	53.9528	63.1389	96.6720	
3.388168	895.729	939.359	1325.10	1323.51	-280.91	-287.62	-255.16	61.5239	61.5385	70.2643	61.5615	129.407	54.0679	63.1246	97.5614	
3.481456	895.887	939.781	1327.41	1323.09	-280.98	-287.62	-254.56	61.3527	61.3066	70.3782	61.4480	129.446	54.1830	63.1246	97.6207	
3.571927	894.940	939.781	1325.94	1323.93	-280.41	-287.62	-253.43	61.2672	61.3066	70.3212	61.1634	129.407	54.1255	63.1389	96.6720	
3.673760	895.887	941.888	1325.94	1323.93	-280.91	-287.62	-252.43	61.2672	61.0459	70.3212	60.9366	129.602	54.1255	63.2093	95.6641	
3.764189	895.887	939.781	1325.94	1323.93	-281.41	-287.62	-252.43	60.8102	60.8141	70.2643	60.7093	129.654	54.1830	63.2374	96.7906	
3.863601	895.887	941.888	1327.41	1323.09	-280.91	-287.62	-251.37	60.8102	60.8141	70.3782	60.5956	128.052	54.1255	63.1810	96.9092	

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER PARAMETER UNITS	PFJC PSIA	PFVCD PSIA	PFVC-1 PSIA	PFVC-2 PSIA	TOJ DEG F	TOFM DEG F	TOBL DEG F	TFJ DEG F	TFVI DEG F	TTCJ DEG F	TTCVI DEG F	TRCAO DEG F	TRCFO DEG F	TH201 DEG F	PH20-OUT PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
3.954068	895.887	939.781	1327.41	1323.09	-280.91	-287.62	-251.37	60.3817	60.3792	70.4921	60.4250	129.602	54.4131	63.4626	96.6127
4.044620	896.993	941.888	1325.94	1323.93	-278.70	-287.88	-249.19	60.3531	60.1470	70.2927	60.2544	129.823	54.4131	63.0120	96.6127
4.145563	896.993	941.888	1325.94	1323.93	-280.55	-287.62	-248.40	60.1245	59.8569	70.3212	59.8276	129.524	54.4131	63.2938	97.5614
4.236007	896.993	941.888	1325.94	1323.93	-280.12	-288.04	-248.27	59.8671	59.8569	70.4351	59.7423	129.654	54.4420	62.8431	97.6207
4.338390	896.993	941.888	1327.41	1323.09	-280.41	-288.11	-247.49	59.6955	58.6827	70.4351	59.6284	129.602	54.5858	63.2514	97.1463
4.428810	896.993	941.888	1325.94	1323.93	-280.34	-288.11	-247.16	59.4667	59.4504	70.4921	59.2299	129.602	54.4420	63.2514	96.6127
4.526400	896.993	941.888	1325.94	1323.93	-279.70	-288.11	-246.31	59.4381	59.1891	70.2927	59.1444	129.823	54.3557	62.8712	97.5614
4.619167	896.993	940.624	1327.41	1323.09	-280.55	-288.11	-262.71	59.2091	58.9857	70.2643	58.8881	129.836	54.4420	63.2374	98.0950
4.709675	896.993	941.888	1325.94	1323.93	-280.12	-288.11	-252.43	58.9802	58.9567	70.3782	58.7740	129.823	54.4131	63.1810	97.5614
4.812306	893.361	939.359	1325.94	1323.93	-277.86	-288.14	-249.19	58.9802	58.9567	70.3782	58.5461	129.446	54.5282	63.3500	96.6127
4.906254	822.456	871.093	1327.41	1323.51	-173.07	-288.14	-247.68	11.8208	65.2370	70.2072	65.1313	129.550	53.8952	63.2514	93.7667
5.005469	819.140	868.986	1327.41	1323.93	-73.275	-288.11	-254.09	6.48947	65.2370	70.0364	65.0748	129.690	49.7971	63.1246	94.0632
5.098036	819.140	868.986	1327.62	1325.20	-56.497	-288.11	-274.78	17.1514	65.2947	70.0364	65.0748	110.086	45.7939	63.1951	93.7667
5.191986	819.140	868.986	1327.41	1323.93	-46.169	-288.11	-265.91	25.2896	65.3524	70.0364	65.4139	88.6266	42.8217	63.1810	92.8181
5.296144	612.742	1056.09	1331.83	1330.06	-35.715	-288.14	-257.71	30.6229	65.4100	70.1503	65.4704	77.5484	41.2142	63.0261	92.8773
5.388119	74.7194	1362.02	1364.44	1360.68	-30.451	-288.14	-253.29	33.1385	65.4677	69.5803	65.4986	70.4517	40.3068	63.0966	92.4030
5.490314	73.4561	1360.34	1364.44	1361.11	-23.845	-288.11	-251.37	35.2663	65.5253	68.4394	65.4986	70.9388	39.5447	63.1810	93.1145
5.585207	74.0877	1360.76	1364.44	1363.22	-18.646	-288.14	-248.80	37.1526	65.6694	67.7826	65.5835	69.7833	38.9581	63.1246	92.8181
5.684929	74.7194	1361.18	1364.44	1363.22	-13.805	-288.11	-247.75	38.7994	65.8998	67.5255	65.7247	60.6680	38.6353	63.0261	92.8773
5.778948	74.7194	1361.18	1364.65	1363.22	-10.473	-288.11	-246.70	40.0028	65.9286	67.3539	65.8659	68.4446	38.4005	63.3218	91.0986
5.872908	74.7194	1361.18	1364.65	1363.22	-6.8532	-288.14	-245.66	41.1458	66.3607	67.1252	66.0354	68.8912	38.1949	62.9135	92.8773
5.977613	74.7194	1362.02	1364.65	1363.22	-3.9444	-288.14	-244.04	42.3163	66.1302	66.9537	65.9224	67.7746	38.1949	63.1389	92.9959
6.070573	74.7194	1362.02	1364.65	1363.22	-2.0389	-288.14	-244.04	42.8134	66.3607	66.8393	65.9507	67.3416	38.1949	63.3500	92.8773
6.172233	74.7194	1362.45	1365.07	1364.06	2.77206	-288.14	-243.00	43.7187	66.3607	66.6105	66.1483	67.3416	37.6660	63.2374	94.8933
6.267108	74.7194	1362.45	1365.07	1364.06	2.50867	-288.14	-243.00	44.1855	66.3607	66.3816	66.1766	66.9503	37.6660	63.2514	92.8181
6.359568	74.7194	1362.87	1366.12	1363.22	3.41403	-288.14	-242.03	44.6522	66.3607	66.3816	66.1766	66.7824	37.5485	63.1246	91.9287
6.459846	74.7194	1362.87	1366.33	1364.49	5.10809	-288.14	-239.92	45.0311	66.3607	66.1527	66.2048	66.8802	37.4602	63.2514	92.8181
6.553819	74.7194	1363.08	1366.33	1364.49	6.31007	-288.14	-239.98	45.5845	66.3607	66.0381	66.1483	66.6705	37.3132	63.2374	92.8181
6.657515	74.7194	1363.08	1366.33	1364.70	8.14651	-288.11	-239.98	46.0502	66.3607	65.9236	66.2613	66.6985	37.1956	63.0261	91.8694
6.750464	74.7194	1363.08	1367.80	1364.49	8.70776	-288.14	-238.90	46.0793	66.3607	65.6945	66.2613	66.5587	37.1956	63.2374	92.8181
6.853163	74.7194	1364.13	1367.80	1364.70	10.0531	-288.11	-238.90	46.5156	66.3607	65.5226	66.3177	67.5092	37.0192	63.3078	91.4543
6.947119	74.0877	1364.13	1367.80	1364.70	11.5080	-288.11	-238.07	46.7483	66.3607	65.2361	66.3177	66.5587	36.9603	63.0261	90.9207
7.039579	74.0877	1364.55	1367.80	1364.91	11.3962	-288.11	-237.94	47.0099	66.3895	65.2361	66.1766	66.4327	36.9603	63.1246	98.9840
7.141822	74.7194	1364.55	1368.01	1366.18	11.9552	-288.11	-237.18	47.4457	66.3607	64.9495	66.2048	66.3348	36.7249	63.1810	92.8773
7.236231	74.5615	1363.08	1368.01	1366.18	13.4814	-288.11	-236.42	47.4457	66.3895	64.7775	66.3742	66.4327	36.7544	63.0261	92.0473
7.338828	74.5615	1364.13	1368.01	1366.18	14.6339	-288.11	-236.04	47.9104	66.3895	64.5480	66.3177	66.4327	36.9014	63.0684	91.9287
7.432902	74.5615	1364.13	1367.80	1365.75	11.9924	-288.11	-235.85	47.9104	66.3895	64.3185	66.3177	65.7750	36.7249	63.1810	92.9959
7.526827	74.5615	1364.13	1368.43	1366.39	15.3026	-288.04	-233.90	47.9104	66.3895	64.2039	66.3742	66.4468	36.7249	63.2374	93.7667
7.627139	73.7719	1365.82	1368.01	1367.44	14.9683	-288.04	-233.90	47.9395	66.3895	64.0316	66.3742	63.8546	36.6072	63.1810	92.8181
7.722045	74.7194	1365.82	1369.48	1366.39	15.8596	-288.11	-233.84	48.3747	66.3895	63.8019	66.3742	66.4468	36.6660	63.3078	91.8694
7.823788	24.1860	1365.82	1368.01	1367.86	2.65965	-288.11	-233.84	47.9104	66.3895	63.6871	66.3177	66.2509	36.6660	62.6740	93.9446
7.917205	14.7110	1365.82	1369.48	1366.39	7.6597	-288.11	-232.77	45.6135	66.3895	63.3425	66.3177	66.3348	36.6072	63.3500	92.3437
8.017551	14.0793	1366.24	1369.48	1367.44	-13.805	-288.11	-232.77	44.4189	66.3607	63.0552	66.4023	66.2229	36.6660	63.0966	93.7667
8.115433	14.0793	1366.24	1369.69	1367.86	-19.156	-288.11	-232.34	43.7478	66.3895	62.9402	66.2613	66.2089	36.4894	63.2374	92.3437
8.207910	14.0793	1366.24	1369.69	1367.86	-23.450	-288.11	-231.84	44.1855	66.3607	62.7103	66.2613	66.2789	36.4894	63.2514	92.8181

END FILE

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	PRCAO	PGH20T		WH20C-2		WH20P-2		TW-A4		TW-A6		TW-B5		TW-C1	
PARAMETER	PH20-J	WH20C-1		WH20P-1		TW-A3		TW-A5		TW-B4		TW-B6		TW-C1	
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
-1.179831	897.494	1118.57	1218.53	10.9307	10.7849	1.32942	13.5426	66.1246	61.8481	88888.0	65.2539	63.3005	68.2887	70.2697	65.3296
-1.083191	900.524	1121.50	1219.16	10.9580	10.7821	1.32900	13.5313	66.1246	61.5670	88888.0	65.2539	65.6875	68.2887	69.7096	64.2061
-.992222	896.696	1116.89	1219.16	10.9252	10.7849	1.32900	13.5369	65.8441	61.8481	88888.0	65.2539	65.6875	68.1484	68.1684	64.2061
-.890964	900.524	1118.57	1218.53	10.9361	10.7821	1.32914	13.5276	66.1246	61.5670	88888.0	65.2539	65.6875	68.1484	68.1684	63.9251
-.800511	900.205	1118.99	1218.53	10.9252	10.7821	1.34034	13.5276	65.8441	61.5670	88888.0	65.2539	65.6875	68.2887	69.7096	64.7679
-.698459	896.058	1116.47	1218.53	10.9088	10.7821	1.33623	13.5070	65.8441	61.8481	88888.0	65.2539	65.6875	68.2887	69.9897	64.4870
-.607570	901.162	1124.02	1217.91	10.9361	10.7918	1.32687	13.5351	65.8441	61.8481	88888.0	64.9729	65.6875	66.8861	68.1684	63.9251
-.517060	900.205	1119.82	1218.85	10.9034	10.7821	1.32715	13.5351	65.8441	61.8481	88888.0	65.2539	65.6875	68.2887	69.7096	65.0488
-.414165	900.205	1119.41	1218.85	10.9034	10.7821	1.32205	13.5295	66.1246	61.5670	88888.0	64.9729	64.2837	68.2887	69.9897	64.4870
-.323252	897.334	1119.41	1218.85	10.9006	10.7821	1.33623	13.5313	66.1246	61.8481	88888.0	65.2539	65.6875	66.8861	68.1684	63.9251
-.221265	897.494	1116.47	1218.53	10.9034	10.7904	1.33112	13.5276	65.8441	61.8481	88888.0	64.9729	65.6875	66.8861	68.1684	63.9251
-.176824	898.291	1117.10	1218.85	10.9143	10.7821	1.34034	13.5351	65.8441	61.8481	88888.0	64.9729	65.6875	66.8861	68.0283	64.2061
-.151224	900.205	1117.73	1218.85	10.9211	10.7585	1.33708	13.5369	65.8441	61.5670	88888.0	64.9729	65.6875	68.1484	69.2894	65.0488
-.114200	901.481	1118.57	1218.85	10.9225	10.7585	1.33580	13.5201	65.8441	61.8481	88888.0	64.9729	65.6875	68.1484	69.2894	65.0488
-.088600	901.481	1120.45	1218.85	10.9088	10.7572	1.33141	13.5276	65.8441	61.8481	88888.0	64.9729	65.6875	67.1667	69.1493	65.0488
-.063000	900.205	1117.73	1218.85	10.9006	10.7655	1.32687	13.5295	66.1246	61.8481	88888.0	64.9729	65.6875	66.3248	69.1493	63.9251
-.025904	902.438	1118.15	1218.85	10.8993	10.7821	1.32673	13.5239	65.8441	61.8481	88888.0	64.8324	63.7219	66.0441	68.1684	64.2061
-.003304	896.058	1116.05	1218.85	10.9006	10.7821	1.33353	13.5070	66.1246	61.5670	88888.0	64.8324	64.2837	67.0264	69.1493	64.2061
.0036702	894.782	1115.21	1218.22	10.9061	10.7682	1.33501	13.5126	65.8441	61.8481	88888.0	64.9729	64.2837	67.1667	70.2697	64.2061
.062302	894.782	1115.21	1218.85	10.9334	10.7682	1.33821	13.5201	65.8441	62.5508	88888.0	64.9729	65.6875	67.1667	69.7096	64.7679
.099780	897.494	1118.57	1218.53	10.9443	10.7821	1.33580	13.4977	65.8441	61.8481	88888.0	64.8324	63.8624	115.111	69.7096	64.2061
.125380	897.334	1118.15	1218.22	10.9389	10.7849	1.33580	13.5201	65.8441	61.8481	88888.0	64.8324	63.3005	126.308	68.7290	63.9251
.150980	897.334	1116.89	1218.53	10.9361	10.7904	1.34034	13.5220	65.8441	62.5508	88888.0	64.8324	63.1600	119.077	69.2894	63.9251
.187960	900.205	1118.15	1218.22	10.9334	10.7862	1.34842	13.5070	65.8441	62.5508	88888.0	63.2863	63.3005	112.371	68.1684	63.7846
.213560	900.205	1118.57	1218.85	10.9334	10.7904	1.33254	13.5201	65.8441	61.8481	88888.0	64.8324	63.3005	110.726	68.7290	63.9251
.250610	897.015	1115.63	1218.85	10.9225	10.7904	1.32900	13.5351	64.4412	61.5670	88888.0	64.8324	63.3005	108.118	68.1684	63.9251
.276210	896.058	1118.15	1218.85	10.9225	10.7821	1.32900	13.5369	63.4586	61.5670	88888.0	62.7237	63.7219	104.956	66.3456	61.9573
.301810	895.739	1117.10	1218.85	10.9225	10.7821	1.33396	13.5500	62.1946	59.5981	88888.0	62.5831	61.6140	105.919	64.3807	59.7062
.339338	894.782	1115.21	1218.85	10.9361	10.7821	1.34048	13.5463	61.0705	57.3459	88888.0	60.1906	61.4734	108.118	61.8519	58.5799
.364938	889.997	1113.11	1218.22	10.9416	10.7682	1.34048	13.5201	61.6326	56.7824	88888.0	60.1906	61.0515	108.255	62.5547	58.8615
.402039	895.739	1116.47	1217.91	10.9321	10.7627	1.33027	13.4921	61.0705	54.8095	88888.0	59.6273	62.0357	110.314	62.4141	59.1431
.427639	897.334	1115.42	1218.85	10.9102	10.7585	1.33013	13.5201	60.7894	55.9371	88888.0	59.6273	61.4734	108.530	62.1330	59.4247
.464696	894.463	1115.21	1218.22	10.9225	10.7821	1.32914	13.5351	60.7894	55.9371	88888.0	59.3456	60.9109	109.354	62.1330	59.4247
.490296	896.058	1116.89	1218.85	10.9648	10.7655	1.33353	13.5070	60.7894	55.7961	88888.0	59.3456	60.9109	108.530	62.1330	59.1431
.515896	900.844	1118.99	1218.85	10.9539	10.7682	1.33169	13.5220	58.9612	55.7961	88888.0	59.2047	61.0515	110.452	62.9762	59.4247
.553442	902.598	1118.15	1218.22	10.9252	10.7821	1.33027	13.5201	80.9344	81.5723	88888.0	80.6488	68.7726	101.652	77.1187	69.5375
.579042	900.844	1118.57	1218.85	10.9116	10.7572	1.33580	13.5351	171.741	212.039	88888.0	241.666	79.9515	87.2658	106.335	84.3347
.616111	900.205	1116.89	1218.69	10.9252	10.7572	1.33594	13.5369	241.169	310.680	88888.0	362.751	83.8490	83.9304	112.373	85.1689
.641711	902.438	1118.15	1218.22	10.9334	10.7585	1.33821	13.5201	285.455	325.334	88888.0	401.116	107.755	55.9149	160.957	131.328
.667311	901.162	1116.89	1218.85	10.9539	10.7821	1.33353	13.5070	517.203	309.835	88888.0	389.896	224.736	-61.140	453.708	303.317
.704329	896.058	1114.79	1218.85	10.9648	10.7904	1.32914	13.5201	673.172	541.086	88888.0	473.351	322.475	-147.52	677.292	512.844
.729929	897.494	1117.10	1218.69	10.9881	10.8181	1.33580	13.5052	652.495	675.200	88888.0	542.576	351.517	-176.38	725.060	605.022
.767025	900.205	1118.57	1218.69	10.9867	10.8320	1.34487	13.5313	651.689	726.843	88888.0	588.299	366.443	-192.45	764.901	677.629
.792625	898.610	1115.21	1218.69	10.9758	10.8431	1.34303	13.5351	672.635	722.171	88888.0	620.921	378.253	-204.04	795.589	724.746
.830123	895.739	1113.53	1218.85	10.9648	10.8320	1.33920	13.4977	684.699	730.845	88888.0	639.274	385.696	-212.84	798.906	751.556
.855723	894.463	1114.79	1218.69	10.9935	10.8320	1.33934	13.4921	694.339	749.066	88888.0	646.665	389.063	-216.35	801.161	769.660
.881323	894.782	1116.47	1218.85	10.9867	10.8431	1.33934	13.5070	703.168	774.516	88888.0	662.161	393.551	-221.67	818.923	763.141
.918322	896.058	1116.89	1218.85	11.0195	10.8472	1.34034	13.5070	713.058	788.196	88888.0	679.089	397.895	-230.54	821.043	756.751
.943922	897.334	1116.89	1218.85	11.0127	10.8708	1.34530	13.5351	719.601	820.018	88888.0	681.102	399.155	-232.62	809.647	772.320

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	PRCAO	PGH20T		WH20C-2		WH20P-2		TW-A4		TW-A6		TW-B5		TW-C1	
PARAMETER	PSIA	PH20-J	PSIA	WH20C-1	WH20P-1	LB-W	LB-W	TW-A3	TW-A5	TW-B4	TW-B6	DEG F	DEG F	DEG F	DEG F
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
.981017	896.058	1115.42	1218.69	11.0086	10.8708	1.33821	13.5351	724.006	848.604	88888.0	686.066	402.375	-236.36	824.354	792.915
1.006617	895.420	1113.74	1218.85	11.0086	10.8708	1.33821	13.5313	730.276	860.635	88888.0	703.488	404.614	-236.36	845.001	801.543
1.032217	895.739	1112.69	1218.85	10.9976	10.8708	1.34275	13.5052	734.542	872.925	88888.0	708.039	406.853	-240.15	849.763	810.032
1.069761	898.291	1114.37	1218.69	11.0099	10.8708	1.35168	13.4865	738.807	889.832	88888.0	715.397	408.111	-247.90	856.507	818.384
1.095361	893.825	1113.53	1218.69	11.0195	10.8708	1.33594	13.5369	738.674	883.625	88888.0	717.537	410.488	-251.86	853.995	820.902
1.132443	894.782	1115.42	1218.69	11.0086	10.8708	1.33353	13.5426	742.937	889.964	88888.0	716.601	411.326	-257.66	855.714	823.021
1.158043	898.291	1117.10	1218.69	11.0099	10.8735	1.34048	13.5426	743.603	877.020	88888.0	723.953	411.047	-255.62	858.093	826.863
1.195103	897.334	1114.79	1217.91	11.0523	10.8708	1.35437	13.5295	739.474	868.829	88888.0	726.225	410.488	-262.03	852.937	833.618
1.220703	896.377	1115.21	1218.69	11.0195	10.8569	1.34260	13.5276	739.740	853.893	88888.0	733.570	410.488	-263.86	860.473	841.826
1.246303	894.144	1113.74	1218.69	10.9867	10.8541	1.34275	13.5313	741.073	847.678	88888.0	742.245	410.488	-263.86	865.628	845.796
1.283840	895.420	1113.11	1218.69	10.9881	10.8708	1.34501	13.5052	746.134	849.662	88888.0	749.580	411.326	-268.08	870.782	848.046
1.309440	894.942	1113.11	1218.85	11.0086	10.8541	1.33934	13.5052	749.596	856.141	88888.0	758.109	411.885	-268.35	875.010	850.295
1.346493	893.187	1111.85	1217.91	10.9908	10.8472	1.33807	13.5014	753.323	856.141	88888.0	766.632	412.165	-271.85	874.614	850.295
1.372093	897.015	1118.15	1218.69	10.9976	10.8403	1.33353	13.5052	754.654	850.852	88888.0	773.153	413.562	-272.39	879.238	854.263
1.397693	895.420	1114.79	1218.69	11.0414	10.8458	1.33169	13.5276	755.851	858.123	88888.0	778.473	414.680	-274.57	881.484	858.760
1.434699	898.291	1116.47	1218.69	11.0209	10.8708	1.33580	13.5276	754.121	864.468	88888.0	784.722	414.680	-272.66	878.710	860.876
1.460299	898.291	1116.89	1218.69	10.9990	10.8708	1.34147	13.5201	755.851	870.811	88888.0	787.513	414.260	-277.89	880.295	860.876
1.497334	900.205	1118.57	1217.60	11.0086	10.8763	1.33934	13.5313	754.654	865.525	88888.0	794.422	415.238	-277.33	883.466	862.992
1.522934	900.205	1116.89	1218.22	11.0195	10.8708	1.33920	13.5201	754.786	860.106	88888.0	798.539	414.680	-277.33	886.240	860.744
1.560465	895.739	1114.37	1217.60	11.0195	10.8708	1.34076	13.5201	756.516	839.213	88888.0	798.672	414.680	-280.13	887.296	855.454
1.586065	896.377	1114.79	1218.69	11.0086	10.8708	1.34076	13.5164	758.645	847.546	88888.0	796.281	415.378	-279.01	886.108	853.999
1.611665	894.782	1113.53	1217.91	11.0086	10.8708	1.33013	13.5070	759.443	870.943	88888.0	794.422	415.797	-280.13	886.108	856.512
1.648755	894.144	1111.85	1218.69	11.0099	10.8708	1.33027	13.5201	759.975	867.639	88888.0	797.609	415.797	-281.54	886.768	857.173
1.674355	896.377	1113.11	1217.91	11.0099	10.8569	1.33580	13.5052	758.911	867.639	88888.0	800.796	414.819	-286.12	885.844	856.512
1.711403	894.463	1113.74	1218.69	11.0263	10.8472	1.33807	13.5070	761.571	870.811	88888.0	802.787	416.355	-285.26	888.749	859.290
1.737003	896.058	1116.47	1218.69	11.0291	10.8541	1.33580	13.5070	766.623	872.925	88888.0	800.663	417.053	-283.82	881.352	858.760
1.762603	892.868	1111.85	1218.69	11.0236	10.8708	1.33807	13.5351	762.901	872.925	88888.0	795.352	417.053	-286.12	881.088	859.818
1.869518	897.334	1115.21	1217.60	11.0099	10.8708	1.33027	13.5201	766.623	873.321	88888.0	815.923	417.053	-295.31	895.089	861.405
1.959955	897.015	1116.47	1217.60	11.0414	10.8569	1.33112	13.5351	766.623	875.038	88888.0	813.536	417.053	-300.54	892.051	858.628
2.061959	896.058	1115.63	1217.60	11.0099	10.8472	1.33027	13.5220	776.155	877.284	88888.0	814.597	419.426	-300.54	890.863	862.463
2.152401	896.058	1113.53	1217.91	11.0086	10.8569	1.33580	13.5201	776.456	879.398	88888.0	817.780	419.705	-297.14	894.297	862.992
2.250609	898.610	1114.79	1217.60	11.0099	10.8708	1.33027	13.5201	768.617	883.493	88888.0	820.697	418.030	-297.75	892.051	865.108
2.343818	893.187	1111.85	1217.60	11.0086	10.8472	1.32900	13.4902	771.807	877.284	88888.0	826.132	419.426	-300.23	894.297	860.876
2.434267	893.506	1111.43	1217.60	10.9881	10.8458	1.33197	13.5313	777.120	883.625	88888.0	823.348	419.426	-300.54	890.863	867.091
2.533179	896.696	1116.05	1217.60	11.0318	10.8708	1.34714	13.5201	775.394	883.493	88888.0	828.650	419.426	-297.75	897.334	864.050
2.624028	895.739	1115.21	1217.60	11.0099	10.8569	1.33807	13.5070	775.128	883.625	88888.0	826.795	419.426	-290.52	894.297	862.463
2.724527	894.942	1114.79	1217.60	11.0291	10.8708	1.33594	13.5313	777.784	887.719	88888.0	830.240	419.845	-294.71	894.693	860.744
2.814933	894.942	1113.53	1217.60	10.9867	10.8708	1.32673	13.5070	782.299	884.681	88888.0	828.253	420.961	-295.92	895.749	861.934
2.905812	894.463	1110.60	1217.60	10.9867	10.8708	1.33580	13.5052	776.987	886.002	88888.0	829.445	420.403	-297.75	895.749	861.934
3.007275	900.205	1116.89	1217.60	11.0127	10.8708	1.33934	13.5201	776.722	889.832	88888.0	829.710	419.426	-299.61	895.089	858.760
3.097139	894.782	1114.79	1217.60	10.9990	10.8541	1.32687	13.5070	782.033	893.002	88888.0	833.553	419.845	-300.54	895.881	858.760
3.199082	901.162	1116.89	1217.60	11.0086	10.8708	1.33367	13.5463	783.626	886.795	88888.0	832.890	420.263	-297.75	895.221	862.199
3.289516	895.739	1113.11	1217.60	11.0099	10.8708	1.33141	13.5276	784.157	890.889	88888.0	834.745	419.984	-295.92	896.278	861.934
3.388168	895.739	1113.74	1217.60	11.0537	10.8708	1.32673	13.5313	781.237	892.341	88888.0	835.010	420.263	-297.75	897.334	861.405
3.481456	894.144	1111.85	1217.44	11.0086	10.8458	1.33254	13.5239	785.219	893.134	88888.0	837.130	419.705	-302.74	897.730	859.818
3.571927	894.942	1115.21	1217.44	11.0099	10.8708	1.32460	13.5201	783.892	887.719	88888.0	839.911	419.426	-300.23	897.202	860.744
3.673760	896.377	1113.53	1217.44	10.9881	10.8458	1.32446	13.5201	792.120	893.002	88888.0	839.249	421.379	-300.54	897.995	861.141
3.764189	897.015	1116.47	1217.60	11.0086	10.8541	1.33807	13.5014	784.954	898.284	88888.0	841.103	420.821	-300.54	892.712	863.918
3.863601	897.494	1114.37	1217.60	11.0127	10.8708	1.33623	13.5313	788.405	898.680	88888.0	841.103	421.379	-297.75	897.995	865.372

## TRANSPARATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	PRCAO	PGH20T		WH20C-2		WH20P-2		TW-A4		TW-A6		TW-B5		TW-C1	
PARAMETER		PH20-J		WH20C-1		WH20P-1		TW-A3		TW-A5		TW-B4		TW-B6	
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	317/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
3.954068	897.494	1113.74	1217.44	11.0099	10.8708	1.33920	13.5201	784.556	893.926	88888.0	838.189	420.263	-292.90	896.278	865.108
4.044620	893.506	1111.85	1217.44	10.9881	10.8708	1.33353	13.4902	787.608	898.680	88888.0	843.089	421.519	-295.92	898.919	862.728
4.145563	893.506	1110.60	1217.44	11.0086	10.8708	1.32673	13.5070	789.864	898.284	88888.0	845.208	422.635	-297.75	899.843	864.976
4.236007	894.463	1113.53	1217.44	11.0086	10.8458	1.32460	13.4977	786.679	898.284	88888.0	843.089	421.240	-292.90	896.278	863.521
4.338390	895.420	1115.21	1217.60	11.0291	10.8569	1.33027	13.5426	792.120	902.905	88888.0	844.281	421.519	-299.61	900.504	862.728
4.428810	894.782	1114.37	1217.60	11.0537	10.8541	1.33580	13.5014	790.793	898.284	88888.0	846.400	423.053	-300.54	897.334	861.934
4.526400	894.782	1111.02	1217.44	11.0537	10.8708	1.32673	13.4865	793.446	895.246	88888.0	845.340	421.937	-298.06	898.391	859.290
4.619167	900.844	1118.57	1217.60	10.9662	10.8514	1.33934	13.5070	789.201	893.926	88888.0	844.281	421.519	-295.92	898.391	858.628
4.709675	892.390	1111.85	1217.44	10.9881	10.8458	1.33013	13.4902	792.385	896.171	88888.0	846.664	421.519	-297.75	899.315	860.744
4.812306	897.334	1114.79	1217.44	11.0127	10.8708	1.33821	13.5276	764.230	876.756	88888.0	834.613	412.165	-274.85	875.143	843.811
4.906254	896.696	1111.43	1217.44	11.0099	10.8514	1.33396	13.5220	346.158	522.366	88888.0	520.553	226.777	-70.022	396.565	370.684
5.005469	894.782	1116.47	1217.60	10.9867	10.8153	1.33254	13.4902	194.090	246.930	88888.0	310.983	134.913	13.3689	207.596	189.662
5.098036	891.592	1112.69	1217.44	10.9252	10.8015	1.33580	13.5276	137.738	158.110	88888.0	200.185	103.218	45.6015	138.663	132.959
5.191986	893.187	1111.85	1217.44	10.9006	10.7655	1.33693	13.5014	110.216	114.690	88888.0	135.639	88.4323	58.1697	108.807	106.181
5.296144	896.377	1113.74	1217.44	10.9252	10.7821	1.34487	13.5014	94.6644	94.8880	88888.0	107.229	79.3941	65.9037	92.8212	91.8293
5.388119	893.506	1113.53	1217.44	10.9102	10.7572	1.33580	13.4865	93.4203	94.8880	88888.0	102.824	77.8603	68.1484	89.3584	90.5822
5.490314	897.972	1117.73	1217.44	10.9416	10.7682	1.33027	13.5276	92.5905	93.7819	88888.0	98.6859	76.7441	68.2887	88.2489	88.5020
5.585207	894.144	1114.79	1217.44	10.8993	10.7821	1.33367	13.5276	90.2373	92.8136	88888.0	95.9221	76.3253	69.2699	87.1388	88.5020
5.684929	895.101	1113.74	1217.44	10.8993	10.7488	1.32914	13.5070	90.2373	91.9831	88888.0	93.9851	74.9288	69.2699	86.0280	86.5584
5.778948	898.291	1115.21	1217.44	10.9471	10.7876	1.33353	13.5369	89.5446	90.5983	88888.0	91.7689	74.9288	68.2887	85.3335	85.1689
5.872908	895.420	1115.21	1217.44	10.9361	10.7821	1.33580	13.5070	87.8811	90.4598	88888.0	90.1050	74.6494	69.4100	84.9167	84.0565
5.977613	894.463	1113.53	1217.44	10.9225	10.7821	1.33169	13.5220	87.3263	88.3805	88888.0	88.4397	74.6494	69.4100	83.9436	83.9175
6.070573	893.506	1113.74	1217.44	10.8883	10.7682	1.32715	13.5070	86.4938	88.2418	88888.0	86.7729	73.3916	70.5307	84.4997	83.9175
6.172233	900.524	1116.89	1217.44	10.9211	10.7572	1.33254	13.5164	85.3832	86.1601	88888.0	85.3828	74.6494	70.3907	83.9436	81.8299
6.267108	897.334	1116.05	1217.44	10.9116	10.7821	1.32262	13.4996	83.9941	84.9100	88888.0	85.1046	74.6494	70.3907	83.9436	81.8299
6.359568	894.782	1113.11	1217.44	10.9280	10.7682	1.33594	13.5201	83.7161	83.6590	88888.0	82.8780	72.2728	70.3907	81.5785	79.8795
6.459846	894.144	1113.74	1217.44	10.9443	10.7821	1.34601	13.5052	83.7161	82.8246	88888.0	82.7388	72.1329	69.2699	81.4393	79.6007
6.553819	891.911	1110.60	1217.44	10.8993	10.7572	1.33112	13.4827	83.7161	81.9898	88888.0	82.7388	72.1329	70.5307	82.5528	79.6007
6.657515	892.230	1111.85	1217.44	10.9211	10.7655	1.34034	13.5070	81.2127	81.7115	88888.0	80.6488	72.2728	70.3907	81.4393	78.4851
6.750464	893.187	1111.02	1217.44	10.9225	10.7544	1.32900	13.4921	80.2383	80.4584	88888.0	80.5094	71.7132	71.5109	81.0216	78.4851
6.853163	896.058	1111.85	1217.44	10.8993	10.7544	1.33580	13.4921	80.0990	79.4833	88888.0	78.9752	72.1329	70.8108	81.5785	77.6480
6.947119	892.390	1113.74	1217.44	10.9225	10.7655	1.33807	13.5070	78.9847	79.3439	88888.0	78.1378	71.1534	70.3907	80.3253	76.5313
7.039579	902.438	1116.89	1217.44	10.9034	10.7572	1.34728	13.5220	79.1241	79.3439	88888.0	77.5794	71.8531	70.3907	80.3253	76.2520
7.141822	900.205	1116.89	1217.44	10.9211	10.7461	1.33112	13.5201	78.7060	77.2525	88888.0	76.7414	70.0334	70.3907	80.0466	75.1345
7.236231	893.506	1113.53	1217.44	10.8993	10.7544	1.33254	13.5052	78.0092	77.1130	88888.0	76.7414	71.1534	72.6305	80.4646	76.2520
7.338828	895.420	1115.21	1217.44	10.9116	10.7655	1.32800	13.5313	77.8698	77.1130	88888.0	76.1826	71.5732	70.8108	80.3253	75.1345
7.432902	900.844	1116.05	1217.44	10.8993	10.7544	1.32687	13.5201	77.5909	76.1361	88888.0	76.1826	71.5732	70.8108	80.3253	75.1345
7.526827	893.187	1111.85	1217.44	10.8542	10.7821	1.32446	13.5052	76.8937	75.0191	88888.0	75.0644	71.1534	70.5307	78.9317	74.0163
7.627139	896.058	1113.74	1217.44	10.9389	10.7682	1.33353	13.5014	76.1961	75.0191	88888.0	74.5052	71.8531	70.8108	79.2105	73.8765
7.722045	896.696	1116.89	1217.44	10.8993	10.7544	1.34076	13.5276	76.1961	74.4604	88888.0	73.9456	70.4534	71.5109	79.2105	73.4570
7.823788	897.334	1116.05	1217.44	10.8993	10.7516	1.33112	13.5052	75.6379	74.8795	88888.0	73.8058	70.0334	72.6305	79.2105	73.4570
7.917205	896.696	1115.42	1217.44	10.8678	10.7572	1.33084	13.5070	75.6379	73.9015	88888.0	73.9456	71.0134	72.6305	79.3499	72.8976
8.017551	900.205	1117.73	1217.44	10.8993	10.7544	1.32673	13.5164	75.6379	73.0629	88888.0	73.8058	70.4534	72.6305	79.2105	72.8976
8.115433	896.696	1116.47	1217.44	10.9102	10.7461	1.33027	13.5351	74.8003	73.0629	88888.0	73.8058	70.1734	71.5109	78.0952	72.8976
8.207910	894.463	1113.11	1217.44	10.8993	10.7572	1.33240	13.5070	75.3588	72.7832	88888.0	73.8058	69.8933	70.5307	78.0952	72.7577

END FILE

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 319418
PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALA 31941A
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45 18/ 48
-1.179831	61.8515	62.5972	70.2995	64.9412	64.2651	62.4113	63.2359	2.44429 .634160
-1.083191	62.5543	62.0325	70.2995	64.9412	64.1246	62.4113	63.6570	.967163 .634160
-.992222	62.5543	61.7501	70.2995	63.5371	63.1412	62.4113	63.0955	2.02225 1.47971
-.890964	63.6782	61.7501	69.7392	62.9752	63.1412	62.4113	62.9550	.967163 .634160
-.800511	63.2568	62.0325	70.0194	63.5371	63.1412	62.4113	63.2359	.967163 .634160
-.698459	62.1326	63.8673	70.2995	63.5371	64.1246	64.2374	63.0955	.967163 .634160
-.607570	63.6782	61.7501	70.0194	62.9752	63.1412	62.4113	62.9550	2.02225 1.47971
-.517060	62.5543	62.0325	69.7392	62.9752	63.1412	62.4113	63.2359	.967163 .634160
-.414165	61.4297	63.8673	70.2995	63.5371	65.5287	62.4113	63.5166	.967163 .634160
-.323252	64.0995	61.7501	70.2995	62.6942	63.1412	62.4113	62.9550	.967163 1.47971
-.221265	64.6611	61.7501	70.2995	62.9752	63.1412	62.4113	62.9550	2.02225 .634160
-.176824	62.9758	62.0325	70.0194	62.9752	63.1412	62.4113	63.0955	.967163 .634160
-.151224	61.4297	64.0083	70.2995	63.8180	63.8437	62.4113	63.5166	.967163 .634160
-.114200	60.8673	63.8673	70.2995	62.9752	64.1246	62.4113	63.5166	.967163 .634160
-.088600	63.6782	62.8795	70.2995	62.9752	63.1412	64.2374	62.5338	.967163 .634160
-.063000	64.3804	61.7501	70.2995	62.9752	63.1412	62.4113	62.9550	.967163 1.05693
-.025904	63.6782	61.7501	70.2995	62.6942	63.1412	62.4113	62.9550	1.60022 1.47971
-.000304	61.8515	63.8673	70.2995	62.6942	63.8437	64.2374	62.9550	.967163 1.47971
.036702	61.8515	64.0083	70.4396	63.2561	63.1412	62.4113	63.5166	.967163 1.47971
.062302	63.2568	63.8673	70.2995	62.9752	63.1412	64.2374	62.5338	.967163 .634160
.099780	62.5543	63.8673	70.2995	64.9412	64.2651	62.4113	63.2359	2.44429 1.05693
.125380	63.6782	61.7501	70.2995	64.9412	65.5287	62.4113	62.9550	2.02225 1.47971
.150980	61.8515	62.8795	69.7392	64.8008	63.8437	64.2374	62.9550	.967163 .634160
.187960	61.2892	62.8795	69.1787	64.9412	65.5287	62.4113	63.6570	.967163 .634160
.213560	61.2892	63.8673	69.1787	64.9412	65.5287	64.2374	63.2359	2.44429 .634160
.250610	61.4297	62.8795	68.8985	64.8008	65.5287	62.4113	63.5166	.967163 .634160
.276210	61.8515	61.6089	67.0756	62.6942	65.5287	64.2374	62.5338	.967163 .634160
.301810	57.0670	57.2268	63.7063	62.6942	64.1246	62.1303	63.2359	.756146 .634160
.339338	54.1070	55.2451	63.2848	62.5536	63.0007	62.1303	63.2359	.967163 .634160
.364938	53.1195	56.3777	63.7063	62.5536	63.1412	62.1303	63.5166	.756146 .634160
.402039	53.9659	56.9438	63.5658	62.5536	63.1412	61.9897	62.3934	.756146 .211387
.427639	57.0670	56.0945	63.5658	61.5697	62.7196	61.9897	62.1124	.967163 .634160
.464696	57.3487	56.3777	63.7063	62.5536	62.0167	61.9897	61.8315	1.60022 .634160
.490296	57.3487	56.0945	63.5658	62.5536	62.0167	61.9897	61.4100	.756146 .634160
.515896	54.6711	56.9438	63.7063	62.5536	63.0007	61.9897	61.8315	2.02225 .634160
.553442	76.9786	70.7687	76.0336	71.5281	66.3708	68.7257	68.1438	.967163 .634160
.579042	88.2482	82.9639	90.0873	126.708	104.994	124.115	116.832	1.60022 .634160
.616111	86.7216	81.8457	92.8579	188.293	158.305	181.955	180.522	.756146 .634160
.641711	122.350	169.553	197.131	240.504	190.641	217.059	216.137	1.60022 .634160
.667311	330.726	428.581	589.473	400.754	268.431	355.224	290.786	.967163 1.90248
.704329	550.687	570.802	849.638	468.642	360.417	449.232	401.909	2.02225 .634160
.729929	617.945	625.052	918.360	450.088	403.528	471.932	437.323	.967163 .634160
.767025	664.534	650.084	963.005	439.675	425.319	482.281	443.712	.967163 .634160
.792625	700.728	656.568	1002.80	436.477	425.458	484.348	452.309	.967163 1.90248
.830123	725.986	667.364	1026.28	443.426	425.180	482.419	455.911	.967163 .634160
.855723	738.125	680.167	1036.58	458.543	430.892	482.281	453.695	.967163 1.90248
.881323	744.390	688.784	1043.71	449.534	431.867	480.075	456.741	2.02225 .211387
.918322	753.181	692.955	1067.08	456.326	429.221	478.972	459.786	2.02225 .634160
.943922	761.699	695.645	1068.53	464.217	433.259	477.868	461.169	.967163 .211387



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER TW-C4 TW-C5 TW-C6 TW-D1 TW-D2 TW-D3 TW-D4 FCALB 319418

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 319418
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45
.981017	769.015	700.753	1069.59	474.443	437.573	478.006	463.935	2.44429
1.006617	774.332	699.544	1075.93	478.583	439.659	480.075	461.584	.967163
1.032217	773.269	699.544	1080.42	484.098	442.994	481.178	462.552	.756146
1.069761	777.522	704.247	1088.87	484.649	446.050	481.316	470.429	2.44429
1.095361	780.843	708.277	1089.80	484.649	446.883	480.489	474.155	.967163
1.132443	781.242	714.588	1089.14	487.680	446.050	482.419	473.051	.756146
1.158043	784.163	715.662	1095.09	491.672	443.689	482.694	474.293	2.02225
1.195103	787.616	716.735	1105.79	492.085	441.049	482.419	472.775	.756146
1.220703	786.023	716.735	1119.42	493.873	438.546	482.281	474.845	.756146
1.246303	787.616	714.722	1128.29	496.074	437.434	482.281	481.600	.334111
1.283840	789.209	716.735	1134.90	494.011	437.434	482.419	486.833	.756146
1.309440	792.660	718.748	1145.90	492.773	437.155	483.521	487.384	.756146
1.346493	794.518	723.175	1162.86	496.074	438.129	485.588	494.536	.967163
1.372093	793.456	727.064	1173.60	496.486	438.129	484.072	499.482	.756146
1.397693	789.740	729.745	1174.53	497.174	437.990	482.694	500.580	2.02225
1.434699	791.333	731.755	1178.38	499.510	439.937	484.072	502.228	.967163
1.460299	794.651	727.332	1182.10	498.273	438.546	485.588	504.423	.967163
1.497334	796.641	727.332	1190.86	498.273	437.990	486.690	504.423	.967163
1.522934	796.906	731.755	1194.32	498.273	437.990	486.690	502.228	.756146
1.560465	798.896	731.755	1195.78	496.486	438.546	485.726	503.326	.756146
1.586065	797.702	734.971	1190.60	496.211	438.129	486.690	505.658	2.02225
1.611665	798.896	735.641	1182.10	498.273	438.129	488.893	505.246	.967163
1.648755	798.764	738.186	1190.86	500.609	439.102	488.893	503.326	.967163
1.674355	802.080	738.186	1193.52	500.472	437.712	488.893	502.777	.756146
1.711403	802.080	735.105	1191.53	498.273	437.712	488.893	501.129	.967163
1.737003	798.896	731.755	1187.14	498.273	438.546	488.893	504.423	2.02225
1.762603	798.896	729.745	1185.55	500.884	439.241	488.893	507.989	.967163
1.869518	802.743	734.971	1199.10	500.472	438.824	488.893	501.129	.756146
1.959955	805.130	727.868	1190.60	498.961	438.824	488.893	508.264	.967163
2.061959	806.190	733.899	1199.10	502.807	439.241	486.828	514.293	2.65530
2.152401	807.384	731.755	1199.36	502.807	439.241	489.031	514.430	2.02225
2.250609	803.141	735.641	1204.95	503.357	440.354	488.893	514.293	2.44429
2.343818	810.963	741.399	1200.96	500.884	441.327	489.031	513.197	1.60022
2.434267	809.637	740.328	1204.68	501.708	440.771	488.893	517.305	2.02225
2.533179	806.986	734.033	1207.61	502.807	439.102	489.031	511.553	.967163
2.624028	807.384	726.796	1196.71	501.571	440.771	489.306	516.758	.967163
2.724527	807.384	727.600	1201.76	500.609	441.327	489.994	508.812	2.44429
2.814933	810.565	723.175	1195.11	502.807	440.354	488.893	520.453	.967163
2.905812	806.190	733.899	1199.10	504.867	441.882	489.306	520.590	2.44429
3.007275	807.384	732.827	1194.05	504.867	441.327	488.893	512.923	2.02225
3.097139	810.565	735.105	1199.10	505.004	442.994	489.031	515.389	1.60022
3.199082	809.637	731.889	1193.25	503.082	441.049	489.031	516.758	1.81123
3.289516	813.746	738.320	1199.10	501.983	441.327	489.031	516.758	2.02225
3.388168	809.637	732.961	1191.39	500.884	442.577	486.690	511.142	2.02225
3.481456	812.553	732.961	1199.36	505.004	442.994	489.306	511.690	.967163
3.571927	809.637	734.301	1196.44	507.200	440.771	488.893	516.758	.967163
3.673760	815.734	740.730	1199.10	505.965	441.882	488.893	527.563	2.02225
3.764189	813.613	746.754	1199.10	502.533	441.327	488.893	530.159	2.02225
3.863601	814.409	742.471	1196.71	502.533	440.354	489.031	531.525	.967163

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-113 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 191 LU 14 FROM 980/ 0 TO 1009/95 FILE STARTING T.O.D. 16:11:52.826030 T.C.V. ON T.O.D. 16:11:54.005861

PARAMETER	TW-C4	TW-C6	TW-D2	TW-D4	FCALB 319418
PARAMETER	TW-C5	TW-D1	TW-D3	FCALA 31941A	
UNITS	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193
3.954068	810.167	742.604	1192.19	504.867	440.354
4.044620	813.746	738.186	1195.64	505.004	443.272
4.145563	812.686	742.471	1199.90	507.200	440.771
4.236007	810.167	735.909	1195.38	503.906	443.272
4.338390	812.553	735.909	1202.02	505.004	442.438
4.428810	818.118	733.899	1196.18	507.063	440.215
4.526400	813.613	731.755	1199.10	504.867	442.577
4.619167	811.228	731.755	1190.60	507.475	442.160
4.709675	814.939	733.899	1200.96	504.867	441.327
4.812306	797.437	706.397	1151.20	496.074	437.155
4.906254	318.461	310.774	408.602	231.621	206.164
5.005469	183.852	160.891	199.155	89.4951	89.9430
5.098036	134.322	115.249	142.372	69.7083	71.4158
5.191986	108.120	93.1373	113.511	66.0639	66.3708
5.296144	94.4803	81.9855	97.0062	64.9412	65.5287
5.388119	90.0507	83.1037	94.7949	64.8008	65.5287
5.490314	90.3279	83.1037	93.4115	64.8008	64.1246
5.585207	87.8320	83.1037	92.8579	64.8008	64.2651
5.684929	86.0274	81.9855	90.3645	64.8008	63.8437
5.778948	86.9993	79.7473	89.2553	62.6942	64.1246
5.872908	83.9430	79.7473	87.8679	62.6942	64.1246
5.977613	84.7770	79.6074	85.9237	62.6942	64.1246
6.070573	80.8817	79.7473	85.9237	62.9752	64.2651
6.172233	80.8817	79.6074	83.9776	62.9752	64.1246
6.267108	80.3246	77.7868	83.9776	62.6942	64.1246
6.359568	80.4639	76.2449	82.0295	62.6942	64.1246
6.459846	80.3246	74.9825	81.1940	62.5536	63.0007
6.553819	77.1181	77.3664	80.9154	63.2561	63.8437
6.657515	77.8156	74.7019	80.3581	62.9752	63.1412
6.750464	76.9786	74.9825	79.5219	63.2561	63.9841
6.853163	75.3034	74.7019	79.2430	63.8180	64.1246
6.947119	77.1181	73.0172	78.6853	62.5536	63.0007
7.039579	75.0240	74.0001	77.8483	62.9752	63.8437
7.141822	75.5826	72.8767	76.7318	62.6942	63.1412
7.236231	73.3472	73.0172	76.7318	62.9752	65.5287
7.338828	73.3472	72.8767	76.0336	62.9752	63.8437
7.432902	75.0240	72.8767	75.3352	62.9752	63.1412
7.526827	75.0240	70.6281	75.0558	62.6942	63.7032
7.627139	73.6267	70.7687	75.0558	62.6942	63.1412
7.722045	71.3890	72.8767	75.0558	62.9752	64.1246
7.823788	72.2284	70.7687	75.0558	62.6942	63.8437
7.917205	71.3890	70.7687	75.0558	63.6776	63.5627
8.017551	71.1091	70.7687	73.7979	63.2561	63.7032
8.115433	71.9487	70.6281	73.6581	62.9752	63.1412
8.207910	70.2693	70.6281	72.6790	62.6942	64.1246

END FILE



## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	F-A	PC-1	POJI	POFM	WLO2-1	PFJ	PFV-1	PGFI
PARAMETER	F-H	PC-2	POJ	PGOT	WLO2-2	PFVD	PFV-2	
UNITS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32
-1.180694	64.5064	65.4650	14.4761	14.5311	14.4459	14.4609	869.694	862.723
-1.085501	63.4580	63.7774	14.4761	14.5311	14.2316	13.1968	798.058	862.723
-0.992403	64.5064	67.1526	14.2376	14.1087	14.5531	13.1968	784.862	857.687
-0.892926	64.2967	67.1526	14.2376	14.1087	14.4459	13.1968	814.710	855.169
-0.803006	64.5064	65.4650	14.2376	14.1087	14.5531	13.4075	818.166	853.490
-0.701064	64.2967	65.4650	14.2376	14.5311	14.4459	13.1968	820.261	852.651
-0.610668	63.8774	65.4650	13.9991	14.5311	14.2316	13.1968	818.795	851.811
-0.520213	64.2967	63.7774	14.2376	14.5311	14.0172	13.1968	819.632	850.972
-0.419392	64.2967	65.4650	13.9991	14.1087	14.4459	13.4075	820.470	850.972
-0.329001	64.2967	66.3088	14.2376	14.1087	14.4459	15.3036	818.166	850.972
-0.229113	64.5064	66.3088	13.7606	14.5311	14.0172	13.4075	818.376	850.972
-0.181471	63.8774	63.7774	13.9991	14.5311	14.4459	13.1968	819.632	850.972
-0.155871	64.2967	66.3088	13.9991	14.1087	14.5531	13.4075	819.632	850.972
-0.119307	64.5064	65.4650	13.9991	14.5311	14.4459	13.4075	818.376	850.133
-0.093707	64.2967	65.4650	14.2376	14.5311	14.4459	15.3036	820.470	850.972
-0.068107	64.5064	66.3088	14.2376	14.1087	14.4459	13.4075	820.470	850.552
-0.031074	65.9740	67.1526	14.4761	14.5311	14.2316	13.4075	891.896	850.972
-0.005474	64.5064	66.3088	14.2376	14.5311	14.2316	15.3036	880.586	851.811
0.031043	64.5064	65.4650	14.2376	14.5311	14.4459	13.4075	848.748	852.651
0.056643	65.9740	67.1526	14.2376	14.5311	26.6629	16.9891	876.606	853.490
0.082243	63.4580	65.4650	14.2376	14.5311	182.590	46.4843	853.984	853.910
0.118771	64.2967	65.4650	14.2376	14.5311	408.819	59.1251	849.900	856.008
0.144371	63.4580	63.7774	14.4761	14.5311	413.212	58.2824	879.957	856.008
0.180970	62.8291	65.4650	14.4761	14.5311	399.495	56.5970	866.552	856.847
0.206570	62.8291	65.4650	14.2376	14.5311	399.817	57.4397	853.251	857.687
0.243573	63.4580	63.7774	14.2376	14.5311	402.067	56.5970	876.711	857.687
0.269173	64.2967	66.3088	15.4300	16.2205	404.532	56.5970	866.342	859.365
0.294773	65.9740	68.8402	16.5031	17.4877	406.675	56.5970	858.383	859.365
0.323234	62.8291	65.4650	16.1454	17.4877	408.819	56.5970	881.214	860.205
0.357934	66.8127	68.8402	16.1454	16.6429	410.747	56.5970	860.896	860.205
0.394498	64.2967	66.3088	16.3839	16.2205	412.355	56.5970	858.592	860.205
0.420098	63.8774	66.3088	16.3839	16.6429	414.070	56.5970	882.261	860.625
0.445698	65.5547	68.8402	16.1454	16.6429	416.320	55.7542	856.498	860.625
0.482239	63.6677	65.4650	16.1454	16.6429	418.249	57.4397	867.809	860.834
0.507839	71.2156	72.2155	16.3839	16.6429	419.214	131.599	798.477	860.834
0.544897	88.1983	89.0915	20.4381	19.1771	420.928	266.435	759.936	860.205
0.570497	222.383	220.725	68.6112	63.1035	422.107	582.876	763.288	859.365
0.607067	316.312	315.231	101.045	101.117	422.321	646.502	766.011	856.847
0.632667	773.797	764.134	306.138	275.978	415.784	658.300	778.578	856.847
0.658267	1409.08	1405.42	587.546	563.189	411.391	741.308	812.092	856.008
0.694866	1470.30	1477.57	608.770	609.227	412.355	733.302	807.065	854.120
0.720466	1443.88	1450.78	598.993	600.357	413.534	727.403	803.714	853.910
0.757034	1443.46	1449.30	598.396	596.028	413.534	727.403	803.504	853.490
0.782634	1444.72	1450.15	599.947	597.823	412.891	729.089	805.389	853.490
0.808234	1443.46	1447.61	598.396	596.978	411.498	727.403	804.761	852.651
0.845292	1443.46	1445.93	598.277	597.401	257.071	726.560	804.761	852.651
0.870892	1439.69	1445.93	597.800	595.711	128.257	725.718	804.970	851.811
0.907420	1441.36	1449.30	598.277	596.978	81.5321	724.453	805.389	851.811
0.933020	1438.85	1445.93	597.323	595.711	67.8148	724.032	804.761	851.811

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	F-A	PC-1	POJI	POFM	WLO2-1	PFJ	PFV-1	PGF1
PARAMETER	F-B	PC-2	POJ	PGOT	WLO2-2	PFVD	PFV-2	
UNITS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32
	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49	
.969618	1437.59	1444.24	597.562	595.289	58.2770	723.189	802.666	850.133
.995218	1443.46	1447.61	598.754	595.922	54.8477	724.453	805.389	850.552
1.020818	1439.69	1447.61	598.277	595.922	49.7037	724.032	803.504	850.552
1.057390	1443.46	1447.61	598.277	596.978	45.9529	724.032	804.761	850.552
1.082990	1443.46	1447.61	599.470	597.401	43.5952	724.032	804.761	850.133
1.119983	1441.36	1447.61	598.396	595.922	41.4519	723.189	803.504	850.133
1.145583	1443.46	1445.93	599.231	596.978	39.7372	723.189	803.714	850.133
1.171183	1439.90	1447.61	598.993	595.711	38.4512	722.347	801.828	850.133
1.207723	1443.46	1449.30	600.424	595.711	37.5939	723.189	803.504	850.133
1.233323	1443.46	1447.61	601.854	595.922	36.7365	724.032	803.295	850.133
1.269916	1438.01	1445.93	600.424	595.289	36.5222	720.661	799.629	850.133
1.295516	1443.46	1447.61	602.093	596.978	36.5222	723.189	802.457	850.133
1.332123	1443.46	1447.61	603.762	596.978	36.3079	722.347	802.247	849.293
1.357723	1443.88	1449.30	605.670	597.823	36.5222	724.032	804.761	850.133
1.383323	1443.46	1447.61	605.193	595.922	36.5222	721.293	802.980	850.133
1.420349	1443.46	1447.61	608.055	596.978	36.0935	723.189	802.666	850.133
1.445949	1439.90	1445.93	608.055	595.711	36.3079	720.661	800.153	850.133
1.482572	1445.98	1454.36	610.201	597.823	35.9864	724.453	804.761	849.293
1.508172	1443.88	1450.15	609.724	597.823	36.3079	723.189	803.504	850.133
1.533772	1446.40	1454.36	610.678	598.668	36.3079	724.453	804.761	850.133
1.570341	1445.98	1452.68	609.724	598.668	36.5222	724.032	802.666	850.133
1.595941	1444.72	1450.57	609.844	597.823	35.9864	723.189	803.504	850.133
1.632500	1446.61	1454.36	611.632	598.668	36.3079	724.875	804.761	850.133
1.658100	1446.40	1453.52	611.155	598.668	36.3079	724.032	804.761	850.133
1.695110	1445.98	1452.68	610.917	597.823	35.9864	724.032	804.761	849.293
1.720710	1446.40	1454.36	610.917	598.668	36.3079	724.032	804.761	850.133
1.746310	1446.61	1456.05	611.394	599.090	35.6649	724.453	804.761	850.133
1.838325	1448.07	1455.21	610.440	598.668	12.9456	724.032	802.876	850.133
1.928238	1449.96	1457.32	611.394	600.357	14.2316	724.453	804.761	850.133
2.028590	1452.27	1459.43	611.155	601.202	14.4459	726.560	806.018	850.552
2.118586	1449.96	1456.90	609.009	600.357	14.2316	724.875	804.761	850.552
2.208498	1451.43	1457.74	608.055	600.357	14.4459	725.718	805.389	850.552
2.310903	1449.96	1456.90	605.909	599.090	13.6957	724.032	804.761	850.972
2.400804	1453.31	1461.11	605.909	600.357	14.2316	726.560	805.180	850.972
2.500742	1449.96	1456.90	604.001	599.090	13.5886	724.032	804.761	851.811
2.590686	1446.61	1454.36	602.808	598.668	14.2316	722.347	802.038	851.811
2.688296	1451.43	1458.58	603.762	600.357	14.2316	724.453	804.761	851.811
2.781050	1456.88	1462.80	604.001	601.202	14.2316	726.560	805.599	851.811
2.870941	1451.43	1459.43	602.808	600.357	14.2316	724.032	805.180	851.811
2.972884	1454.78	1459.43	603.047	601.202	14.4459	725.718	806.018	851.811
3.062806	1454.78	1461.11	603.047	601.202	14.4459	725.718	804.761	851.811
3.161154	1453.31	1461.11	602.808	600.357	14.2316	724.875	804.761	851.811
3.250682	1452.27	1456.90	601.854	599.090	13.5886	724.032	802.247	851.811
3.340583	1453.31	1461.11	602.093	600.357	14.4459	724.032	804.761	851.811
3.440993	1454.99	1461.11	602.808	600.357	14.2316	726.560	804.761	851.811
3.530894	1454.78	1461.96	602.808	601.202	14.2316	725.718	806.018	851.811
3.629225	1458.14	1464.07	603.285	601.202	14.4459	726.560	806.018	851.811
3.718720	1451.64	1459.43	601.377	600.357	14.4459	723.189	802.876	851.811
3.816650	1453.11	1459.43	601.616	599.090	13.5886	723.189	802.876	851.811

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	F-A	PC-1	PC-2	POJI	POFM	PGOT	WLO2-1	PFJ	PFV-1	PGFT					
PARAMETER	F-8	PC-1	PC-2	POJI	POJ	PGOT	WLO2-1	WLO2-2	PFJ	PFV-1	PFV-2	PGFT			
UNITS	LBS	LBS	PSIA	PSIA	PSIA	PSIA	LBS-W	LBS-W	PSIA	PSIA	PSIA	PSIA			
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
3.909524	1453.11	1459.43	601.854	599.512	14.2316	724.032	803.504	851.811	3.44397	3.42618	1050.86	1083.08	1363.32	1363.22	12.3888
3.999417	1453.31	1461.11	602.093	601.202	14.4459	724.453	805.180	851.811	3.44277	3.42618	1050.86	1083.08	1363.32	1363.22	12.3888
4.097796	1454.36	1461.11	602.093	601.202	14.4459	724.032	805.180	851.811	3.44036	3.42618	1050.86	1083.08	1363.32	1363.22	12.3888
4.188236	1454.36	1459.43	601.854	600.357	14.2316	724.032	803.714	851.811	3.44758	3.43014	1050.86	1083.08	1363.32	1363.53	12.3888
4.287491	1453.11	1460.27	602.093	600.357	14.2316	723.189	804.761	851.811	3.44036	3.41993	1050.86	1083.08	1364.58	1363.69	12.3888
4.377459	1456.88	1461.11	602.093	601.202	14.4459	725.718	804.761	851.811	3.44457	3.43014	1050.86	1083.08	1363.32	1363.53	12.3888
4.467862	1449.96	1456.90	600.424	599.090	13.6957	721.293	800.990	851.811	3.43074	3.41170	1050.02	1083.08	1363.32	1363.53	12.3888
4.568770	1457.72	1463.65	602.808	601.202	14.2316	725.718	805.389	851.811	3.45719	3.43310	1050.86	1083.08	1364.58	1363.69	12.3888
4.658251	1456.88	1462.80	602.808	601.202	14.2316	724.875	806.018	851.811	3.44998	3.43014	1051.39	1084.36	1364.58	1363.69	12.3888
4.760140	1449.96	1456.90	601.139	599.512	14.0172	723.189	802.876	851.811	3.44277	3.41993	1050.76	1083.08	1364.58	1363.69	12.3888
4.854042	373.130	381.047	156.611	176.721	14.0172	184.691	913.471	852.651	1.22187	1.05150	349.987	1467.86	1437.59	1439.25	12.3888
4.954845	102.875	105.968	32.8391	43.6745	14.4459	96.2048	874.930	856.008	.866854	.759443	62.8594	1460.84	1440.43	1441.16	12.3888
5.049370	75.1992	77.2783	15.1915	21.2890	14.4459	53.6474	840.579	858.526	.756531	.632675	32.5468	1460.84	1440.43	1441.16	12.3888
5.143308	74.7798	75.5907	14.4761	20.0219	14.5531	48.1697	892.106	860.205	.621858	.552992	28.3367	1462.12	1441.69	1442.12	12.3888
5.245528	74.7798	75.5907	14.4761	19.1771	14.4459	49.0125	840.579	860.625	.602619	.517431	28.1262	1462.12	1441.69	1442.44	12.3888
5.339914	70.5866	72.2155	12.8067	15.7982	14.0172	46.4843	883.309	860.834	.491996	.490760	26.6527	1462.76	1442.33	1443.07	12.3888
5.444108	70.5866	72.2155	12.8067	14.5311	14.2316	45.6416	890.640	862.723	.461935	.350163	23.6004	1464.67	1444.22	1444.98	12.3888
5.536044	70.1673	72.2155	12.8067	14.5311	14.0172	45.6416	856.079	862.723	.369347	.306699	23.6004	1465.95	1444.22	1444.98	12.3888
5.629972	71.0059	72.2155	12.8067	14.1087	14.4459	46.4843	882.471	862.723	.285177	.265212	23.4951	1465.95	1445.49	1446.25	12.3888
5.734638	69.3286	71.3716	12.8067	14.1087	14.4459	46.4843	849.795	862.723	.299606	.255334	23.6004	1465.95	1446.75	1446.57	13.0222
5.827584	67.8610	70.5278	12.8067	14.1087	14.4459	46.4843	891.896	862.723	.335679	.277724	23.4951	1467.86	1446.75	1447.84	12.3888
5.929838	68.4900	70.5278	12.8067	13.2640	14.4459	46.9057	863.200	863.562	.359728	.232614	23.4951	1467.86	1447.38	1448.48	12.3888
6.024253	67.6513	70.5278	12.8067	13.2640	14.4459	46.9057	881.423	862.723	.292392	.239529	23.6004	1468.50	1447.38	1448.48	12.3888
6.124554	67.8610	70.5278	12.8067	14.1087	14.4459	46.9057	872.836	862.723	.229865	.160504	23.6004	1468.50	1447.70	1449.44	13.0222
6.222365	67.8610	70.5278	12.8067	13.2640	14.2316	46.9057	867.180	862.723	.323655	.171700	23.6004	1469.78	1447.70	1449.75	12.3888
6.315301	67.6513	70.5278	12.8067	13.2640	14.4459	46.9057	858.802	862.723	.227460	.185199	24.3371	1471.05	1449.28	1450.07	12.3888
6.417989	67.2320	70.5278	12.8067	13.2640	14.4459	46.9057	866.656	862.723	.279165	.213846	23.6004	1471.05	1450.54	1450.23	12.3888
6.512412	66.8127	69.6841	12.8067	14.1087	14.4459	46.9057	865.086	863.562	.225055	.152602	24.3371	1471.05	1450.54	1451.03	12.3888
6.614504	65.9740	68.8402	12.8067	13.2640	14.4459	46.9057	866.552	863.562	.304416	.171700	24.1266	1471.05	1450.54	1451.34	12.3888
6.707458	66.8127	68.8402	12.8067	13.2640	14.4459	46.9057	856.498	862.723	.212430	.183553	23.6004	1471.05	1450.54	1451.98	12.3888
6.802441	66.1837	68.8402	12.8067	13.2640	14.4459	46.9057	888.126	863.562	.273153	.232285	23.2846	1472.33	1451.81	1452.30	12.3888
6.905070	67.6513	68.8402	12.8067	13.2640	14.4459	47.1163	856.498	862.723	.181768	.152602	23.4951	1472.33	1451.81	1452.62	12.3888
6.998518	67.6513	68.8402	12.8067	14.1087	14.5531	47.1163	887.603	862.723	.256319	.161163	23.2846	1472.33	1451.81	1452.62	12.3888
7.099386	66.1837	68.8402	12.8067	13.2640	14.4459	47.1163	852.308	863.562	.124051	.121980	23.4951	1472.33	1451.81	1452.78	12.3888
7.193352	67.2320	68.8402	12.8067	13.2640	14.2316	47.1163	876.606	862.723	.154112	.138114	23.4951	1472.33	1452.44	1452.62	12.3888
7.293597	67.2320	68.8402	12.8067	13.2640	14.4459	47.1163	868.227	862.723	.179363	.139431	23.2846	1472.97	1452.44	1452.62	12.3888
7.386517	66.8127	68.8402	12.8067	13.2640	14.4459	49.0125	854.612	862.723	.121646	.119346	23.4951	1472.97	1453.07	1453.89	12.3888
7.480937	67.6513	68.8402	12.8067	13.2640	14.2316	47.1163	880.795	862.723	.143290	.131529	23.4951	1473.29	1453.07	1453.89	12.3888
7.585573	65.9740	68.8402	12.8067	13.2640	14.4459	46.9057	854.612	862.723	.133670	.120992	22.7583	1473.29	1453.07	1454.84	12.3888
7.678534	67.6513	68.8402	12.8067	12.4192	14.2316	47.1163	866.133	862.723	.133670	.057773	23.2846	1473.29	1454.33	1454.84	12.3888
7.782287	65.9740	68.8402	12.8067	13.2640	14.4459	39.7425	868.227	862.723	.140885	.095968	21.8111	1473.29	1454.33	1455.16	12.3888
7.875582	66.1837	67.1526	13.0452	13.2640	14.4459	13.4075	854.612	862.723	.114432	.085102	14.0224	1473.29	1454.33	1455.16	12.3888
7.968531	65.9740	67.9964	12.8067	13.2640	14.4459	15.3036	870.950	862.723	.131266	.106175	14.2329	1474.88	1454.33	1455.16	12.3888
8.074189	65.9740	66.3088	13.0452	13.2640	14.4459	13.4075	861.525	862.723	.096996	.046578	14.0224	1474.88	1454.33	1455.16	12.3888
8.166622	65.9740	66.3088	12.8067	13.2640	14.4459	13.4075	856.498	862.723	.102407	.063700	14.2329	1474.88	1454.33	1455.32	12.3888

END FILE

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER PARAMETER UNITS	PFJC PSIA	PFVCD PSIA	PFVC-1 PSIA	PFVC-2 PSIA	TOJ DEG F	TOFM DEG F	TOBL DEG F	TFJ DEG F	TFVI DEG F	TTCJ DEG F	TTCVI DEG F	TRCAO DEG F	TRCFD DEG F	TH20I DEG F	PH20-OUT PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
-1.180694	14.5531	1675.55	1679.96	1677.29	-101.61	-289.18	-278.63	63.3198	68.2010	70.4921	67.7278	66.2089	36.7249	63.9269	92.8181
-1.085501	14.5531	1674.91	1679.96	1677.08	-96.997	-288.92	-274.99	63.3198	67.9713	70.4921	67.8969	66.8802	36.7249	64.1379	92.3437
-0.992403	14.5531	1675.55	1679.96	1677.08	-96.195	-288.92	-267.01	63.3198	67.9713	70.4921	67.7560	66.8802	36.7249	64.1519	92.8181
-0.892926	13.9214	1676.39	1679.11	1676.66	-94.861	-288.79	-267.01	63.3198	68.2010	70.4921	67.8405	66.8802	36.7249	63.7159	91.8694
-0.803006	13.9214	1676.39	1679.11	1676.66	-92.910	-288.79	-268.38	63.3198	68.2010	70.5205	67.8405	66.8802	36.7544	64.6721	93.2924
-0.701064	13.9214	1676.39	1679.96	1677.08	-91.276	-288.79	-272.50	63.3198	68.2010	70.4921	67.7560	66.7685	36.7249	63.9972	91.3951
-0.610668	13.9214	1676.39	1679.96	1677.08	-90.218	-288.70	-272.50	63.4336	68.2010	70.4351	67.7560	66.8802	36.7544	64.4753	91.3951
-0.520213	14.5531	1675.55	1679.96	1677.08	-88.154	-288.40	-274.16	63.3198	68.0862	70.4921	67.7278	66.9921	36.7249	64.1379	91.8694
-0.419392	14.5531	1674.91	1679.11	1677.08	-86.753	-288.14	-275.11	63.4336	67.9713	70.4351	67.7560	66.6285	36.7249	64.6721	92.5809
-0.329001	14.5531	1674.91	1679.96	1677.08	-85.705	-288.14	-277.50	63.4336	68.2010	70.3782	67.7278	66.8802	36.7544	64.2645	91.8694
-0.229113	14.5531	1675.55	1679.96	1677.08	-84.658	-287.88	-277.21	63.3198	68.2010	70.4921	67.7278	66.8802	36.7249	64.1519	92.5809
-0.181471	14.5531	1675.55	1680.38	1677.08	-84.267	-287.88	-276.93	63.4336	67.9713	70.3782	67.7560	66.8802	36.6660	63.7440	90.6836
-0.155871	14.5531	1674.91	1680.38	1677.08	-83.614	-287.75	-276.37	63.4336	68.0862	70.4351	67.7278	66.9921	36.6660	64.2645	91.3951
-0.119307	14.5531	1674.91	1679.96	1676.66	-83.223	-287.62	-276.37	63.4336	67.9713	70.4351	67.7278	66.9921	36.9014	64.2645	91.8694
-0.093707	14.5531	1675.55	1680.38	1677.08	-82.919	-287.75	-276.37	63.4336	68.0862	70.4351	67.7560	66.8802	36.7544	64.4753	90.4464
-0.068107	14.5531	1674.91	1679.96	1677.08	-82.572	-287.75	-274.99	63.4336	67.9713	70.4351	67.7278	66.8802	36.7249	64.3347	92.3437
-0.031074	14.5531	1674.91	1679.11	1676.66	-82.138	-287.75	-275.81	63.4336	68.2010	70.3782	67.7560	66.7685	36.7544	63.4626	90.4464
-0.005474	14.5531	1675.12	1679.11	1676.66	-82.051	-287.75	-274.71	63.4336	68.2010	70.3782	67.7278	66.9921	36.7544	64.3769	91.8694
0.031043	14.5531	1674.91	1679.11	1676.66	-81.488	-287.62	-273.61	63.4336	68.0862	70.3782	67.7560	66.8802	36.7249	64.1379	93.2924
0.056643	22.7648	1676.39	1679.96	1677.08	-73.617	-287.88	-271.95	63.4336	67.9713	70.3782	67.7278	66.8802	36.6660	64.1379	91.3951
0.082243	54.9798	1675.55	1679.96	1677.08	-38.951	-287.62	-273.61	63.7752	67.9713	70.3782	67.5306	66.9921	36.7249	64.4753	93.2924
0.118771	77.0882	1674.70	1680.38	1677.08	-10.859	-287.75	-272.78	64.0028	67.7413	70.4921	67.2769	66.9921	36.7249	64.2503	92.3437
0.144371	82.1415	1675.97	1679.96	1677.08	-3.6732	-287.75	-272.78	64.0028	67.1663	70.4921	66.9384	66.8802	36.6072	64.0816	92.3437
0.180970	83.4048	1676.39	1679.96	1677.08	5.89713	-287.75	-271.95	63.4907	66.8211	70.5205	66.4023	66.7685	36.7544	63.4344	91.8694
0.206570	83.4048	1675.97	1680.38	1677.08	9.71698	-287.75	-271.95	63.4336	66.5910	70.4921	66.0918	66.6285	36.7249	64.1519	90.6836
0.243573	125.727	1672.60	1677.43	1674.97	13.0722	-287.62	-271.40	63.3198	66.1302	70.5205	65.6964	66.9921	36.7249	64.2503	91.8694
0.269173	630.429	1531.64	1659.76	1654.69	15.5254	-287.62	-270.57	63.0920	65.8998	70.4921	65.4704	66.9921	36.7544	64.2503	92.5809
0.294773	931.103	1082.64	1632.00	1628.50	17.6776	-287.75	-270.30	63.0920	65.6694	70.4921	65.2443	66.9921	36.9014	64.3628	91.3951
0.332334	765.606	783.231	1646.30	1643.29	19.3827	-287.75	-269.75	62.8641	65.3813	70.4351	65.1313	66.9921	36.7544	64.2645	90.6836
0.357934	696.754	732.452	1658.92	1655.54	20.8648	-287.75	-269.75	62.5222	65.3813	69.9794	65.0748	66.9921	36.7544	64.1941	92.3437
0.394498	689.806	726.974	1657.24	1653.43	22.6431	-287.75	-268.92	62.4081	65.3236	68.8959	65.0748	66.9921	36.7544	64.1941	90.8614
0.420098	686.016	722.549	1653.03	1647.93	23.4582	-287.75	-268.10	62.1801	65.2082	68.2110	65.0748	66.9921	36.7544	64.2645	90.8614
0.445698	683.489	720.653	1648.82	1644.98	24.7927	-287.62	-269.20	61.6666	65.3236	67.5255	65.0748	66.8802	36.7249	64.0253	90.4464
0.482239	681.910	718.967	1648.82	1644.98	25.1635	-287.75	-268.65	61.4954	65.3236	67.0966	65.0748	67.2158	36.7544	64.1519	92.5809
0.507839	681.594	718.546	1650.51	1647.09	-16.962	-287.75	-269.20	61.2672	65.3236	66.8679	65.0748	66.8802	36.7249	64.0816	90.8614
0.544897	681.594	718.967	1652.19	1648.36	-212.88	-287.62	-269.20	61.2672	65.3236	66.7821	65.0748	66.8802	36.7544	64.2222	90.8614
0.570497	681.910	719.178	1652.19	1649.20	-268.87	-287.75	-269.20	63.3198	65.2082	66.7821	64.7920	66.8802	36.7249	64.3628	90.8614
0.607067	683.489	720.231	1652.19	1649.62	-263.21	-287.36	-267.55	68.7683	64.4006	66.8393	64.1130	67.0480	36.6072	64.2222	91.8694
0.632667	696.754	729.292	1653.03	1650.05	-262.73	-287.62	-268.38	72.3806	59.7698	66.8393	59.1444	66.8802	36.7544	63.9269	92.1066
0.658267	751.709	776.488	1653.45	1650.26	-264.63	-287.75	-268.65	66.7294	60.3502	66.8679	59.8276	67.0480	37.1368	64.4893	93.2924
0.694866	779.503	809.990	1655.56	1651.74	-264.84	-287.75	-268.65	65.3104	64.5160	67.0681	64.3394	66.9921	37.6660	63.9269	94.2411
0.720466	782.661	815.047	1655.56	1651.74	-268.12	-287.75	-268.10	64.9127	64.7468	67.4111	64.1412	67.0480	38.6353	64.1519	96.1384
0.757034	782.661	815.889	1655.56	1651.31	-268.66	-287.75	-268.38	64.2304	64.2851	67.6398	63.9431	66.7685	40.4239	63.6315	95.6641
0.782634	782.661	815.889	1655.56	1651.74	-268.73	-287.75	-267.55	64.0028	64.7468	67.7826	64.3394	66.9921	42.1206	64.1519	94.4782
0.808234	782.661	815.889	1653.45	1651.31	-270.79	-287.75	-268.38	64.2304	65.3813	68.0112	65.2443	66.9921	43.8137	64.2503	94.2411
0.845292	782.661	815.889	1655.56	1651.74	-270.79	-287.75	-268.92	64.9127	66.8211	68.2396	66.3742	72.3427	45.6776	64.3628	94.6561
0.870892	782.661	815.257	1653.45	1651.74	-272.58	-287.88	-268.10	65.2536	67.1663	68.3823	66.8820	83.1605	46.5497	64.3769	94.2411
0.907420	782.661	815.257	1655.56	1651.31	-273.62	-287.88	-267.55	65.8215	67.7413	68.4680	67.2205	94.7616	47.9431	63.9128	94.6561
0.933020	782.661	815.047	1655.56	1651.74	-274.17	-287.88	-268.10	66.1622	67.9713	68.4394	67.3051	102.249	48.8128	64.0816	95.6641

TRANSPARATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	PFJC	PFVC-1		TOJ		TORL		TFVI		TTCVI		TRCFO		PH20-OUT		
PARAMETER		PFVCD	PFVC-2		TOFM		TFJ		TFV		TTCJ		TRCAO		TH20I	
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA	
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88	
.969618	782.029	815.047	1653.66	1650.26	-274.51	-287.88	-268.10	66.5026	67.9713	68.6963	67.4460	109.940	49.5657	64.1379	95.6641	
.995218	782.029	815.047	1655.56	1651.31	-274.79	-287.88	-267.55	66.7294	68.0862	68.8959	67.4460	114.475	50.0575	64.2645	96.1384	
1.020818	782.029	815.047	1653.66	1651.74	-275.19	-287.88	-267.55	66.9562	67.9713	68.8959	67.5024	117.407	50.7225	64.1519	96.3756	
1.057390	782.029	815.047	1653.03	1650.26	-275.19	-288.14	-267.55	66.9562	67.9713	69.1812	67.5024	120.198	51.2426	64.2222	96.3756	
1.082990	782.029	815.047	1653.03	1650.05	-275.19	-288.14	-268.38	66.9562	67.9713	69.1812	67.5024	121.459	51.5890	64.1379	94.6561	
1.119983	782.029	815.047	1653.03	1649.62	-276.03	-288.14	-267.55	66.9562	67.9713	69.1812	67.3051	122.719	51.8777	63.7159	94.5968	
1.145583	782.029	814.625	1653.66	1650.26	-276.45	-288.14	-267.01	66.9562	67.9713	69.2953	67.3051	123.741	52.1375	64.3769	95.6641	
1.171183	782.029	814.625	1653.45	1650.26	-274.24	-288.40	-267.55	66.9562	67.7413	69.3523	67.2769	124.709	52.5123	64.3206	96.3756	
1.207723	782.029	814.625	1653.45	1650.26	-277.50	-288.14	-268.10	66.9562	67.7413	69.3808	67.2769	124.971	53.0889	64.0394	95.6641	
1.233323	782.029	814.625	1653.45	1650.05	-277.50	-288.40	-268.10	66.9562	67.7413	69.5803	67.2769	125.389	53.0889	64.1519	95.6641	
1.269916	782.029	814.625	1653.45	1650.05	-277.57	-288.40	-268.10	66.9562	67.7413	69.6088	67.2205	125.807	53.2041	64.2503	97.0871	
1.295516	782.029	814.625	1653.45	1650.05	-278.14	-288.73	-268.10	66.9562	67.7413	69.8085	67.1641	126.173	53.3770	64.0253	96.1384	
1.332123	782.029	814.625	1653.03	1649.20	-281.26	-288.40	-267.55	66.9562	67.5115	69.8369	67.0795	126.225	53.4922	64.1519	96.1384	
1.357723	782.029	814.625	1653.66	1650.26	-278.99	-288.73	-267.55	66.9562	67.2238	70.0364	67.0513	126.800	53.6649	64.2503	97.0871	
1.383323	782.029	815.047	1653.45	1650.05	-279.27	-288.79	-267.55	66.9562	67.2238	70.0649	66.9384	127.217	53.8952	64.3628	99.9331	
1.420349	782.029	815.047	1653.45	1650.05	-279.70	-288.79	-267.55	66.9562	67.1663	70.2072	66.8820	127.322	53.8952	64.1519	95.1897	
1.445949	782.029	815.047	1653.03	1649.62	-280.12	-288.79	-267.55	66.9562	67.2238	70.2643	66.8820	127.426	54.1830	64.1379	93.7667	
1.482572	782.029	815.047	1653.45	1650.05	-279.98	-288.79	-267.55	66.9562	67.1663	70.3782	66.8820	127.791	54.3557	64.1379	95.6641	
1.508172	782.029	815.257	1655.56	1650.05	-280.41	-288.92	-267.55	66.7294	67.1663	70.5205	66.8820	127.478	54.2981	64.2503	95.6641	
1.533772	782.029	815.047	1653.03	1649.62	-280.98	-288.92	-267.55	66.7294	67.1663	70.7198	66.6282	127.922	54.4131	64.3769	97.3242	
377	1.570341	782.661	815.889	1653.03	1650.05	-281.12	-288.92	-267.55	66.7294	67.0513	71.0043	66.7128	126.800	54.5858	64.1379	96.3756
1.595941	782.029	815.889	1653.66	1650.26	-281.55	-288.92	-267.83	66.7294	67.0513	71.0043	66.5999	128.260	54.6433	64.1519	96.3756	
1.632500	782.029	815.889	1653.03	1649.62	-281.55	-288.92	-268.10	66.7294	67.0513	71.0043	66.4023	128.260	54.9308	64.4753	95.6641	
1.658100	782.029	815.889	1653.03	1649.62	-282.12	-289.18	-266.32	66.6160	67.0513	71.0043	66.4023	128.573	54.9308	63.9269	96.1384	
1.695110	782.029	815.889	1653.45	1650.05	-282.12	-289.18	-267.83	66.5026	66.8211	71.1182	66.3742	128.756	54.9308	64.3769	96.6127	
1.720710	782.029	815.889	1655.56	1650.05	-282.12	-289.18	-267.83	66.5026	66.8211	71.2889	66.3742	128.990	54.9308	64.6158	95.6641	
1.746310	782.661	816.311	1653.03	1649.62	-282.12	-289.44	-267.55	66.5026	66.8211	71.3458	66.3177	129.146	55.1033	64.1379	95.6641	
1.838325	782.661	815.889	1653.45	1650.05	-282.27	-289.44	-267.55	66.7294	67.7413	71.6302	67.2205	129.094	55.0458	64.0816	95.9012	
1.928238	782.661	816.311	1653.03	1649.62	-283.20	-289.71	-267.55	66.7294	66.8211	71.8577	66.3742	129.407	55.2758	64.1519	96.3756	
2.028590	782.661	816.311	1653.45	1650.26	-283.28	-289.97	-266.32	66.1622	66.2454	72.0281	65.6964	129.719	55.3331	64.0253	94.6561	
2.118586	782.661	816.732	1653.45	1650.26	-283.56	-289.97	-267.55	65.8215	65.8998	72.3123	65.4139	129.979	55.6205	63.9269	94.6561	
2.208498	782.661	816.732	1653.66	1650.26	-283.78	-290.23	-268.10	65.8215	65.8998	72.4828	65.2443	129.979	55.7354	64.1379	97.0871	
2.310903	782.661	816.732	1653.66	1650.26	-284.14	-290.23	-268.10	65.3104	65.3813	72.8235	65.1878	130.135	55.7354	64.1098	94.2411	
2.400804	782.661	816.732	1653.03	1650.05	-284.29	-290.49	-267.55	65.2536	65.3813	72.9938	65.1878	130.343	55.8214	64.2503	96.3756	
2.500742	782.661	816.732	1653.45	1650.26	-284.29	-290.81	-268.10	65.1400	65.2082	73.1074	65.0748	130.395	56.0225	64.2222	96.3756	
2.590686	782.661	816.732	1653.45	1650.26	-284.58	-290.88	-267.83	65.1400	65.2082	73.2208	64.7355	130.551	56.1373	63.9269	96.1384	
2.688296	782.977	816.732	1653.45	1650.26	-285.02	-291.01	-269.20	64.9127	64.9775	73.5615	64.5656	130.395	56.1373	63.9269	96.4941	
2.781050	782.977	816.943	1653.03	1650.05	-285.02	-291.01	-269.75	64.9127	64.7468	73.6749	64.3394	130.343	56.2521	64.3769	96.1384	
2.870941	782.977	816.943	1653.03	1650.05	-285.53	-291.27	-269.75	64.6854	64.7468	73.7033	64.0563	130.551	56.4243	64.1098	97.5614	
2.972884	782.977	816.943	1655.56	1650.26	-288.55	-291.27	-269.75	64.3442	64.4006	73.7883	63.8865	129.407	56.2808	64.1098	97.0871	
3.062806	783.135	820.525	1653.03	1650.26	-284.29	-291.53	-270.57	64.2304	64.2851	74.0151	63.6882	131.175	56.4816	64.0816	96.3756	
3.161154	783.135	820.525	1653.66	1651.31	-285.60	-291.53	-270.30	64.0028	64.0542	74.0719	63.5467	130.551	56.5391	63.9269	96.1384	
3.250682	782.977	816.943	1655.56	1650.26	-285.60	-291.53	-270.30	64.0028	63.5344	74.1285	63.4334	130.655	56.4816	64.1519	97.0871	
3.340583	782.977	816.943	1655.56	1650.26	-285.60	-291.53	-271.95	63.4907	63.5344	74.2986	63.2634	130.811	56.7685	64.1379	97.5614	
3.440993	783.135	820.525	1655.56	1650.26	-286.04	-291.79	-272.78	63.4336	63.4766	74.1569	62.9800	130.759	56.7685	64.1519	96.1384	
3.530894	784.556	817.996	1653.66	1650.26	-285.60	-291.92	-273.05	63.3198	63.1298	74.6387	62.7531	130.655	56.7685	64.0253	96.1384	
3.629225	784.556	817.996	1653.66	1651.74	-288.70	-292.05	-272.50	63.0920	62.8985	74.6387	62.5264	130.421	56.8259	64.1519	96.3756	
3.718720	782.977	816.943	1655.56	1650.26	-285.89	-292.05	-273.33	63.0920	62.5515	74.6387	62.2995	130.811	56.7685	64.0253	95.1897	
3.816650	782.977	816.943	1653.66	1651.74	-286.19	-292.31	-273.61	62.8641	62.5515	74.6387	62.1009	130.811	56.7685	64.1519	95.6641	



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	PFJC	PFVCD	PFVC-1	PFVC-2	TOJ	TOFM	TOBL	TFJ	TFVI	TTCJ	TTCVI	TRCAU	TRCFO	TH201	PH20-OUT
PARAMETER	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
3.909524	784.556	818.418	1653.03	1650.26	-286.70	-292.31	-273.61	62.5222	62.4358	74.6387	61.8454	130.655	56.8832	64.0394	95.6641
3.999417	784.556	820.525	1655.56	1650.26	-285.89	-292.31	-274.71	62.4081	62.2043	74.6387	61.7319	130.759	56.8832	64.1379	94.5968
4.097796	784.556	818.418	1655.56	1650.26	-285.75	-292.31	-275.11	62.1801	61.7122	74.6387	61.4480	130.611	56.8832	64.1519	96.6127
4.188236	784.556	818.418	1655.56	1650.26	-285.89	-292.57	-274.99	61.9519	61.6253	74.6387	61.4480	130.811	56.8832	64.1098	97.0871
4.287491	784.556	818.418	1655.56	1650.26	-286.19	-292.96	-274.99	61.6096	61.5095	74.6387	60.9650	130.759	56.9979	64.1379	94.6561
4.377459	785.819	820.525	1655.56	1650.26	-285.89	-292.90	-275.81	61.4954	61.2777	74.6387	60.9366	130.759	57.1125	63.9269	96.1384
4.467862	784.556	817.996	1655.56	1650.26	-286.70	-292.90	-276.93	61.4954	61.0459	74.6387	60.6524	130.759	57.1125	64.1098	96.1384
4.568770	785.819	820.525	1653.03	1650.26	-286.70	-292.96	-276.93	61.2672	61.0459	74.6387	60.4250	130.759	57.1125	64.1379	94.5968
4.658251	785.819	820.525	1655.56	1651.31	-286.70	-292.96	-276.93	61.0387	60.5822	74.6387	60.0552	130.759	57.0553	63.4626	97.5614
4.760140	784.556	820.525	1655.56	1651.31	-286.19	-293.09	-277.21	60.1245	58.7242	74.0151	57.8618	130.811	55.5630	63.5751	96.1384
4.854042	701.807	745.516	1653.45	1651.31	-224.77	-292.96	-277.21	40.9115	64.9775	74.6387	65.0748	128.677	57.1700	64.2222	94.6561
4.954845	684.752	724.024	1655.56	1651.74	-97.890	-292.96	-276.37	6.73265	66.8211	74.1285	66.3742	130.759	54.4131	63.9269	94.4782
5.049370	684.752	723.603	1657.24	1653.00	-65.465	-293.09	-275.18	16.5201	66.8211	74.0719	66.4023	119.777	49.5946	64.0394	92.3437
5.143308	684.752	722.549	1657.24	1653.00	-55.000	-293.09	-275.11	25.5301	67.0513	74.0719	66.4023	97.8129	46.0265	64.0253	91.8694
5.245528	684.752	722.549	1655.56	1653.00	-42.897	-293.35	-276.37	31.5611	67.0513	74.1569	66.7128	82.3925	43.8137	64.0958	91.8694
5.339914	53.0848	1718.53	1690.05	1685.53	-34.868	-293.09	-275.81	34.3214	67.0513	74.1569	66.8820	75.2265	42.1206	64.0253	91.8694
5.444108	74.5615	1686.71	1689.21	1687.64	-28.334	-293.35	-274.99	36.4458	67.1663	73.0506	66.8820	72.3983	41.2142	64.0253	92.3437
5.536044	75.1932	1686.50	1690.89	1687.64	-22.620	-293.09	-275.11	38.0940	67.1663	72.2555	66.8820	71.3421	40.7168	64.0394	90.8021
5.629972	75.1932	1686.50	1690.89	1687.64	-17.627	-293.35	-276.37	39.2693	67.2238	71.6302	66.9384	70.1733	40.2482	64.1519	90.8021
5.734638	75.1932	1686.08	1689.21	1687.64	-13.222	-293.35	-276.93	40.3254	67.5115	71.1182	67.0795	69.7275	39.8965	63.9269	92.3437
5.827584	75.1932	1686.08	1690.89	1687.64	-9.5076	-293.35	-276.37	41.1458	67.2238	71.0043	67.0513	69.0027	39.7207	63.9269	92.3437
5.929838	75.1932	1685.66	1690.89	1687.64	-6.3162	-293.35	-278.06	42.0825	67.7413	70.2927	67.1641	68.7796	39.4861	63.8847	94.2411
6.024253	75.1932	1685.66	1689.21	1687.64	-3.9444	-293.35	-276.93	42.5502	67.7413	69.9794	67.2205	68.3331	39.3395	63.8847	91.8694
6.124554	75.1932	1685.24	1690.89	1687.64	-1.3545	-293.35	-278.06	43.0178	67.5115	69.5803	67.2205	68.3331	39.1049	64.2645	94.4782
6.222365	75.1932	1685.03	1690.89	1687.64	1.18593	-293.35	-278.06	43.7187	67.7413	69.1812	67.2769	68.1097	39.1049	64.1379	90.4464
6.315301	75.1932	1685.03	1690.89	1687.64	2.69740	-293.35	-278.63	43.9521	67.9713	68.8959	67.4460	67.9422	39.0168	63.9972	90.8614
6.417989	75.1932	1684.82	1690.89	1687.64	4.50627	-293.35	-278.06	44.4189	67.7413	68.6107	67.4460	67.9422	38.8408	63.9128	89.4977
6.512412	75.1932	1684.82	1690.89	1687.64	6.27254	-293.35	-279.19	44.6522	67.9713	68.2396	67.5024	67.7746	38.7821	63.9269	90.8021
6.614504	75.1932	1684.82	1689.21	1687.64	7.50993	-293.35	-279.19	44.8853	67.9713	67.9255	67.5306	67.6628	38.6353	63.9269	92.5809
6.707458	75.1932	1684.82	1690.89	1687.64	8.59557	-293.35	-278.06	45.0601	67.9713	67.6398	67.4460	67.7746	38.7821	64.3769	90.8614
6.802441	75.1932	1684.82	1690.89	1687.64	9.86636	-293.35	-279.48	45.5845	67.9713	67.4683	67.5024	67.6628	38.6353	64.2222	90.8021
6.905070	75.1932	1684.82	1690.89	1687.64	9.56755	-293.35	-279.48	45.8174	68.0862	67.0681	67.5306	67.0480	38.5473	64.1379	90.8021
6.998518	75.1932	1684.82	1689.21	1687.64	11.9552	-293.35	-279.48	45.9338	68.0862	66.8393	67.6715	67.5233	38.4005	64.6439	90.4464
7.099386	75.1932	1684.82	1690.89	1687.64	13.0722	-293.35	-279.69	46.2830	68.0862	66.6105	67.5306	67.9422	38.3710	64.0394	91.3951
7.193352	75.1932	1684.82	1690.89	1687.64	13.8905	-293.35	-280.33	46.5156	68.0862	66.3816	67.7278	67.4394	38.1949	64.1519	90.6836
7.293597	75.1932	1684.82	1689.21	1687.64	14.3366	-293.35	-279.19	46.7483	68.0862	66.1527	67.6715	67.4952	38.1949	64.0253	92.3437
7.386517	75.1932	1684.82	1690.89	1687.64	15.3026	-293.35	-279.19	46.7483	68.0862	65.9236	67.6152	67.3276	38.1949	63.9128	91.8694
7.480937	75.1932	1684.82	1690.89	1687.64	15.8224	-293.35	-279.19	46.8646	67.9713	65.6945	67.5306	67.3276	38.2535	64.3769	91.3951
7.585573	75.1932	1684.82	1690.89	1687.64	16.7503	-293.35	-280.33	46.8646	68.0862	65.5226	67.5306	67.4394	38.1949	64.1098	92.3437
7.678534	75.1932	1684.82	1689.21	1687.64	16.9358	-293.35	-279.48	46.9228	67.9713	65.5226	67.4460	67.2158	38.1949	63.9972	91.8694
7.782287	55.2956	1684.40	1690.89	1687.64	14.0764	-293.35	-280.33	47.2133	67.9713	65.0355	67.5024	67.3276	38.1949	63.8566	91.8694
7.875582	14.8689	1685.03	1689.21	1687.64	-2.3433	-293.09	-280.33	45.8174	67.9713	64.7775	67.5024	67.3276	38.1949	64.1379	90.8021
7.968531	14.5531	1684.82	1690.89	1687.64	-8.6214	-293.35	-279.62	45.0601	67.9713	64.3473	67.5024	67.4394	38.1949	64.1519	92.3437
8.074189	14.5531	1684.82	1689.21	1687.64	-14.194	-293.35	-280.90	45.0601	67.9713	64.1178	67.5024	67.3276	38.1949	64.1519	90.8021
8.166622	14.5531	1684.82	1690.89	1687.64	-18.254	-293.09	-280.33	45.3514	67.9713	64.0889	67.5024	67.3276	37.9011	63.9128	91.8694

END FILE

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	PRCAO	PGH20T		WH20C-2		WH20P-2		TW-A4		TW-A6		TW-B5		TW-C1	
PARAMETER	PSIA	PH20-J	PSIA	WH20C-1	LB-W	WH20P-1	LB-W	TW-A3	DEG F	TW-A5	DEG F	TW-B4	DEG F	TW-B6	DEG F
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
-1.180694	887.285	1105.14	1212.46	10.8446	10.7128	1.33070	13.4472	66.1246	64.7978	88888.0	62.5831	63.3005	65.9037	68.1684	64.9084
-1.085501	891.911	1110.60	1212.46	10.8528	10.7239	1.33353	13.4921	66.6854	64.7978	88888.0	62.5831	63.3005	65.9037	68.0283	63.7846
-.992403	892.390	1110.60	1212.46	10.8665	10.7364	1.31993	13.4790	66.4050	64.7978	88888.0	62.5831	63.1600	65.9037	69.2894	64.9084
-.892926	891.911	1110.60	1212.46	10.8542	10.7516	1.33353	13.4902	66.4050	64.7978	88888.0	62.5831	63.1600	65.9037	69.2894	64.9084
-.803006	897.334	1110.60	1212.46	10.8665	10.7350	1.33467	13.4790	66.4050	63.6746	88888.0	62.5831	63.1600	65.9037	68.0283	64.9084
-.701064	890.316	1107.03	1212.46	10.8993	10.7350	1.33807	13.4921	66.4050	64.7978	88888.0	62.5831	63.3005	65.9037	68.0283	64.9084
-.610668	891.911	1110.60	1212.46	10.8774	10.7350	1.33070	13.4622	66.1246	64.7978	88888.0	62.5831	63.1600	65.9037	68.1684	66.0315
-.520213	890.635	1107.03	1212.46	10.8774	10.7350	1.32446	13.4977	66.4050	64.7978	88888.0	62.5831	63.1600	64.7805	68.0283	63.7846
-.419392	889.997	1108.50	1212.46	10.9102	10.7239	1.33013	13.5164	66.1246	64.7978	88888.0	62.5831	63.1600	64.7805	67.7479	63.7846
-.329001	893.506	1110.60	1212.46	10.8446	10.7142	1.32900	13.4790	66.1246	64.7978	88888.0	62.5831	63.3005	65.9037	68.1684	64.9084
-.229113	891.114	1110.60	1212.46	10.8528	10.7253	1.33353	13.4827	66.1246	64.7978	88888.0	62.5831	62.8790	67.0264	68.1684	64.9084
-.181471	889.997	1110.60	1212.46	10.8337	10.7128	1.33467	13.4902	65.8441	64.7978	88888.0	62.5831	63.3005	65.9037	68.1684	66.0315
-.155871	890.635	1110.60	1212.46	10.8528	10.7142	1.33098	13.4790	66.1246	64.7978	88888.0	62.5831	63.1600	64.7805	67.4675	63.7846
-.119307	890.954	1110.60	1212.46	10.8883	10.7239	1.32900	13.4865	66.4050	64.7978	88888.0	62.5831	62.8790	65.9037	68.1684	64.9084
-.093707	892.230	1110.60	1212.46	10.8542	10.7211	1.33070	13.4865	66.1246	64.7978	88888.0	62.5831	63.1600	65.9037	68.1684	64.9084
-.068107	893.506	1110.60	1212.46	10.8665	10.7142	1.32446	13.4902	66.1246	64.7978	88888.0	62.5831	63.1600	65.9037	68.1684	66.0315
-.031074	888.083	1106.82	1212.46	10.8665	10.7142	1.32560	13.4790	66.1246	64.7978	88888.0	62.5831	63.1600	65.9037	68.1684	66.0315
-.005474	892.230	1111.85	1212.46	10.8774	10.7128	1.32446	13.5052	66.1246	64.7978	88888.0	62.5831	63.1600	65.9037	68.0283	64.9084
.031043	895.739	1113.11	1212.46	10.8774	10.7211	1.32616	13.4902	65.8441	65.3592	88888.0	62.5831	63.1600	64.7805	67.4675	63.7846
.056643	893.506	1113.53	1212.46	10.8774	10.7294	1.32446	13.4902	65.8441	65.3592	88888.0	62.5831	63.1600	65.9037	67.7479	64.9084
.082243	894.463	1113.11	1212.46	10.8665	10.7350	1.32786	13.4865	66.1246	64.7978	88888.0	62.5831	63.1600	67.5875	68.1684	64.9084
.118771	891.911	1110.60	1212.46	10.8501	10.7350	1.32560	13.4977	65.8441	64.7978	88888.0	62.5831	63.1600	69.2699	68.1684	64.9084
.144371	888.402	1106.82	1212.46	10.8446	10.7322	1.32446	13.4865	65.8441	64.7978	88888.0	62.5831	63.1600	67.8680	67.0469	64.9084
.180970	892.230	1111.02	1212.46	10.8446	10.7239	1.32560	13.4902	65.8441	64.7978	88888.0	62.5831	63.3005	69.2699	68.0283	64.9084
.206570	890.635	1110.60	1212.46	10.8446	10.7239	1.33070	13.4902	65.8441	64.7978	88888.0	62.5831	62.8790	70.3907	68.1684	63.7846
.243573	892.230	1110.60	1212.46	10.8665	10.7350	1.33807	13.4827	66.4050	65.3592	88888.0	62.5831	62.8790	70.3907	69.1493	64.9084
.269173	892.390	1110.60	1212.46	10.8501	10.7294	1.34260	13.4902	65.8441	65.3592	88888.0	62.5831	62.8790	72.0708	69.1493	66.0315
.294773	889.997	1108.50	1212.46	10.8665	10.7239	1.33467	13.4921	64.1605	61.4264	88888.0	60.0498	62.5979	74.8678	66.9066	63.7846
.332334	892.230	1111.85	1212.46	10.9211	10.7350	1.33467	13.4827	63.3182	60.8640	88888.0	59.7681	62.0357	76.8233	66.0650	62.6603
.357934	891.911	1110.60	1212.46	10.9321	10.7350	1.32560	13.4902	63.0374	60.3015	88888.0	59.2047	61.7545	80.4498	66.0650	61.5354
.394498	888.402	1106.82	1212.46	10.9102	10.7350	1.32205	13.4921	63.0374	59.1760	88888.0	59.2047	61.0515	84.9038	66.0650	61.5354
.420098	889.997	1105.35	1212.46	10.8528	10.7294	1.32560	13.4790	62.1946	59.1760	88888.0	59.2047	62.0357	89.3474	66.6261	62.6603
.445698	889.997	1105.98	1212.46	10.8665	10.7267	1.32446	13.4790	61.2110	59.1760	88888.0	59.2047	62.0357	89.3474	66.0650	61.5354
.482239	890.316	1110.60	1212.46	10.8883	10.7239	1.32616	13.4603	62.1946	59.1760	88888.0	59.2047	61.0515	91.5653	66.0650	61.5354
.507839	889.997	1110.60	1212.46	10.8883	10.7322	1.32616	13.4865	61.9136	59.1760	88888.0	59.2047	61.0515	93.7806	66.0650	61.5354
.544897	892.230	1113.53	1212.46	10.8774	10.7461	1.32446	13.4921	77.5909	69.8448	88888.0	77.1605	67.6513	87.1269	80.8824	70.5181
.570497	894.942	1112.06	1212.46	10.8774	10.7461	1.32446	13.5052	163.933	196.366	88888.0	262.617	78.8365	75.9855	117.846	83.9175
.607067	894.144	1110.60	1212.46	10.9102	10.7544	1.33013	13.5014	254.217	299.220	88888.0	404.338	84.9612	70.3907	129.976	87.2528
.632667	891.592	1106.82	1212.46	10.8938	10.7461	1.33920	13.4902	338.550	390.492	88888.0	451.188	142.232	14.6707	258.114	193.842
.658267	891.911	1107.03	1212.46	10.8829	10.7461	1.34260	13.4977	765.294	654.655	88888.0	546.671	306.413	-113.65	707.424	533.653
.694866	888.083	1105.98	1212.46	10.9102	10.7572	1.33693	13.4977	909.803	872.396	88888.0	668.076	407.412	-192.65	932.062	732.222
.720466	893.187	1106.82	1212.46	10.9403	10.7821	1.33693	13.4827	844.824	876.624	88888.0	720.746	430.438	-225.28	997.560	826.863
.757034	891.911	1106.82	1212.46	10.9403	10.7959	1.34374	13.4790	818.096	909.903	88888.0	768.761	441.567	-255.88	1059.74	891.938
.782634	887.126	1103.46	1212.46	10.9211	10.7959	1.33977	13.4827	826.040	897.227	88888.0	804.380	449.342	-286.70	1100.02	928.398
.808234	891.592	1104.72	1212.46	10.9321	10.8029	1.32786	13.4790	842.179	912.015	88888.0	829.313	456.967	-303.05	1130.83	951.119
.845292	891.911	1106.82	1212.46	10.9416	10.8181	1.32900	13.4790	862.799	980.672	88888.0	847.194	464.720	-318.95	1146.45	967.500
.870892	891.592	1104.72	1212.46	10.9539	10.8181	1.32560	13.4622	876.800	1002.75	88888.0	859.503	469.144	-340.21	1160.23	978.069
.907420	893.506	1107.03	1212.46	10.9648	10.8209	1.33013	13.4790	888.155	985.953	88888.0	869.558	474.117	-348.10	1174.02	984.411
.933020	893.187	1108.50	1212.46	10.9758	10.8209	1.33353	13.4827	894.228	990.707	88888.0	874.848	476.602	-364.71	1181.72	987.581

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 L# 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	PRCAO	PGH20T		WH20C-2		WH20P-2		TW-A4	TW-A6	TW-B5	TW-C1
PARAMETER	PSIA	PH20-J	WH20C-1	WH20P-1	TW-A3	TW-A5	TW-B4	TW-B6	TW-C1	TW-C1	TW-C1
UNITS	PSIA	PSIA	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172
.969618	893.506	1110.60	1212.46	10.9976	10.8347	1.32900	13.4790	894.492	988.066	88888.0	881.064
.995218	889.997	1106.82	1212.46	10.9758	10.8250	1.32900	13.4790	903.732	994.404	88888.0	884.898
1.020818	891.911	1108.08	1212.46	10.9648	10.8237	1.33098	13.4902	910.595	1008.03	88888.0	886.485
1.057390	894.782	1110.60	1212.46	10.9375	10.8181	1.33013	13.4977	907.955	1014.36	88888.0	887.542
1.082990	893.187	1110.60	1212.46	10.9812	10.8209	1.32560	13.4921	907.691	1019.63	88888.0	892.831
1.119983	891.592	1110.60	1212.46	10.9812	10.8250	1.33013	13.5014	912.443	1017.52	88888.0	894.946
1.145583	891.592	1110.60	1212.46	10.9758	10.8250	1.33353	13.4977	916.138	1035.46	88888.0	894.946
1.171183	893.825	1111.02	1212.46	10.9539	10.8237	1.33353	13.4921	919.833	1010.14	88888.0	896.003
1.207723	894.942	1110.60	1212.46	10.9648	10.8250	1.33070	13.4827	920.889	1037.04	88888.0	896.003
1.233323	896.696	1107.03	1212.46	10.9758	10.8237	1.33467	13.4865	923.793	1037.31	88888.0	897.589
1.269916	894.144	1108.50	1212.46	10.9539	10.8209	1.33353	13.4827	916.402	1030.18	88888.0	897.589
1.295516	894.144	1110.60	1212.46	10.9758	10.8237	1.33467	13.4790	919.042	1028.07	88888.0	897.589
1.332123	893.506	1110.60	1212.46	10.9648	10.8250	1.32786	13.4790	921.945	1028.60	88888.0	899.176
1.357723	896.696	1110.60	1212.46	10.9539	10.8250	1.32446	13.4827	923.793	1022.80	88888.0	899.176
1.383323	898.291	1108.71	1212.46	10.9539	10.8237	1.32446	13.4827	928.280	1032.30	88888.0	897.986
1.420349	894.144	1104.72	1212.46	10.9375	10.8209	1.32900	13.4902	923.001	1036.52	88888.0	901.291
1.445949	891.911	1106.82	1212.46	10.9403	10.8250	1.32900	13.4865	923.001	1036.52	88888.0	901.819
1.482572	893.506	1111.43	1212.46	10.9321	10.8209	1.32616	13.5014	925.112	1039.68	88888.0	903.406
1.508172	892.390	1107.03	1212.46	10.9375	10.8126	1.33013	13.5052	926.168	1038.63	88888.0	908.692
1.533772	893.506	1107.03	1212.46	10.9539	10.8029	1.33013	13.4865	929.335	1036.52	88888.0	910.279
1.570341	896.058	1106.82	1212.46	10.9648	10.8181	1.32106	13.4902	929.335	1036.52	88888.0	912.393
1.595941	894.942	1106.82	1212.46	10.9758	10.8181	1.31652	13.4790	928.280	1035.46	88888.0	912.393
1.632500	892.390	1106.82	1212.46	10.9539	10.8098	1.33013	13.4790	933.559	1040.74	88888.0	913.451
1.658100	892.390	1107.03	1212.46	10.9403	10.8209	1.33070	13.4566	936.198	1039.68	88888.0	914.508
1.695110	894.782	1106.82	1212.46	10.9812	10.8250	1.33353	13.4790	934.351	1038.63	88888.0	914.772
1.720710	893.506	1107.03	1212.46	10.9867	10.8237	1.33523	13.4790	935.934	1035.46	88888.0	914.508
1.746310	889.997	1102.21	1212.46	10.9976	10.8250	1.32786	13.4790	932.503	1033.35	88888.0	914.508
1.838325	895.739	1111.85	1212.46	10.9758	10.8237	1.33070	13.4790	931.447	1040.74	88888.0	913.979
1.928238	892.230	1110.60	1212.46	10.9648	10.8250	1.32560	13.4902	944.381	1038.63	88888.0	914.772
2.028590	890.316	1108.08	1212.46	10.9403	10.8320	1.33693	13.4790	940.026	1039.68	88888.0	918.208
2.118586	889.997	1106.82	1212.46	10.9648	10.8375	1.32163	13.4790	937.254	1045.49	88888.0	914.508
2.208498	894.144	1111.02	1212.46	10.9758	10.8320	1.33580	13.4865	935.934	1053.41	88888.0	913.979
2.310903	889.997	1108.50	1212.46	10.9758	10.8209	1.33013	13.4827	939.630	1053.41	88888.0	917.151
2.400804	891.592	1106.82	1212.46	10.9867	10.8250	1.32786	13.4603	941.477	1053.41	88888.0	922.966
2.500742	892.230	1108.50	1212.46	10.9758	10.8320	1.32560	13.4902	941.741	1056.05	88888.0	913.979
2.590686	892.230	1105.98	1212.46	10.9375	10.8126	1.32900	13.4977	935.934	1050.24	88888.0	914.508
2.688296	893.506	1108.50	1212.46	10.9648	10.8237	1.33920	13.4827	939.630	1053.41	88888.0	922.438
2.781050	889.997	1106.40	1212.46	11.0086	10.8250	1.33353	13.4902	948.472	1057.63	88888.0	921.380
2.870941	889.997	1106.82	1212.46	10.9758	10.8209	1.32333	13.4790	939.366	1059.74	88888.0	921.195
2.972884	891.911	1110.60	1211.22	10.9416	10.8126	1.34714	13.4902	941.741	1070.30	88888.0	925.609
3.062806	892.230	1108.50	1211.22	10.9976	10.8237	1.33240	13.4603	929.335	1062.38	88888.0	922.966
3.161154	892.390	1110.60	1211.22	10.9758	10.8237	1.33920	13.4790	934.615	1073.47	88888.0	922.438
3.250682	890.954	1108.50	1211.22	10.9321	10.8209	1.33240	13.4603	935.934	1065.02	88888.0	921.380
3.340583	894.942	1108.08	1211.22	10.9867	10.8347	1.33013	13.4790	935.934	1093.55	88888.0	918.208
3.440993	890.954	1106.82	1211.22	10.9648	10.8181	1.33523	13.4827	940.949	1097.77	88888.0	921.380
3.530894	891.592	1110.60	1209.81	10.9758	10.8250	1.33013	13.4827	937.914	1040.74	88888.0	920.323
3.629225	891.114	1110.60	1211.22	10.9758	10.8126	1.32560	13.4902	940.949	1076.64	88888.0	922.966
3.718720	889.997	1106.82	1211.22	10.9539	10.8181	1.32673	13.4865	940.685	1052.35	88888.0	918.737
3.816650	890.954	1106.82	1211.22	10.9321	10.8126	1.32900	13.4865	940.026	1100.42	88888.0	925.609



## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	PRCAO	PGH201		WH20C-2		WH20P-2		TW-A4		TW-A6		TW-B5		TW-C1	
PARAMETER	PH20-J	WH20C-1		WH20P-1		TW-A3		TW-A5		TW-B4		TW-B6			
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/AOC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
3.909524	889.997	1106.82	1211.22	10.9812	10.8015	1.32616	13.4790	938.838	1021.74	88888.0	923.230	493.964	88888.0	1211.21	997.621
3.999417	889.997	1106.82	1211.22	10.9403	10.8098	1.32333	13.5014	940.685	1115.75	88888.0	919.266	494.514	88888.0	1204.96	997.621
4.097796	891.911	1110.60	1211.22	10.9648	10.8181	1.32163	13.4790	942.005	1137.97	88888.0	919.266	495.339	88888.0	1203.89	997.885
4.188236	896.058	1110.60	1209.66	10.9812	10.8237	1.32106	13.4902	947.284	1033.35	88888.0	919.266	496.439	88888.0	1207.22	996.036
4.287491	890.316	1108.50	1209.66	10.9648	10.8320	1.32560	13.4790	943.061	1053.93	88888.0	918.737	494.652	88888.0	1204.96	997.885
4.377459	889.997	1103.46	1209.66	10.9403	10.8237	1.32560	13.4622	933.559	1080.87	88888.0	918.208	493.138	88888.0	1207.22	997.885
4.467862	889.997	1106.40	1211.22	10.9539	10.8126	1.32900	13.4827	943.061	1108.35	88888.0	921.380	494.652	88888.0	1205.89	996.036
4.568770	888.083	1105.14	1211.22	10.9211	10.8126	1.33098	13.4472	936.858	1102.00	88888.0	924.552	494.652	88888.0	1212.27	999.206
4.658251	890.954	1108.50	1209.66	10.9375	10.8098	1.33353	13.4790	939.894	1063.97	88888.0	921.380	494.514	88888.0	1211.21	999.206
4.760140	892.390	1108.50	1211.22	10.9539	10.8098	1.32786	13.4790	944.381	1083.51	88888.0	920.323	496.164	88888.0	1204.96	994.979
4.854042	887.126	1104.72	1209.66	10.9648	10.8237	1.33467	13.4790	532.792	684.719	88888.0	621.867	331.217	-139.69	653.657	603.263
4.954845	890.954	1111.02	1209.66	10.9416	10.8361	1.33353	13.4790	290.915	362.635	88888.0	438.958	196.708	-40.009	355.536	301.769
5.049370	889.997	1110.60	1209.66	10.9211	10.7821	1.32900	13.4827	194.495	239.253	88888.0	268.167	139.253	12.9347	216.398	190.066
5.143308	887.126	1105.14	1211.22	10.8774	10.7364	1.32673	13.4790	147.749	166.196	88888.0	180.892	110.911	37.6654	157.991	142.588
5.245528	892.230	1111.02	1211.22	10.8883	10.7350	1.33070	13.4790	120.882	131.051	88888.0	137.675	95.4938	49.8447	124.532	115.919
5.339914	891.911	1110.60	1209.66	10.8719	10.7211	1.32786	13.4790	110.216	117.972	88888.0	121.888	87.8773	56.9016	111.413	107.143
5.444108	892.230	1110.60	1209.66	10.8883	10.7294	1.33013	13.4790	107.747	115.785	88888.0	116.967	85.5170	58.5923	105.923	103.567
5.536044	890.316	1110.60	1211.22	10.8774	10.7350	1.33098	13.4790	105.687	113.595	88888.0	112.584	84.1271	58.5923	102.484	102.741
5.629972	891.273	1111.43	1211.22	10.8774	10.7433	1.32446	13.4790	104.451	111.403	88888.0	108.740	83.5709	58.8739	100.279	100.536
5.734638	890.954	1108.08	1209.66	10.8665	10.7350	1.33920	13.4977	102.250	109.209	88888.0	105.991	81.6228	61.4072	97.7966	98.3283
5.827584	889.997	1107.03	1211.22	10.8774	10.7128	1.34260	13.4472	101.423	107.013	88888.0	102.686	80.7874	61.4072	96.9683	97.2236
5.929838	892.390	1108.08	1209.66	10.8446	10.7239	1.33920	13.4827	98.9433	104.814	88888.0	100.480	79.9515	61.4072	94.8959	94.7358
6.024253	893.506	1111.85	1209.66	10.8446	10.7239	1.32446	13.4790	97.5641	102.613	88888.0	98.2716	78.9759	62.5322	94.8959	94.4592
6.124554	893.187	1110.60	1211.22	10.8883	10.7211	1.32333	13.4790	95.3552	100.409	88888.0	95.7838	78.8365	63.0945	93.6513	92.7986
6.222365	894.463	1110.60	1211.22	10.8938	10.7322	1.33353	13.4865	94.5262	99.3058	88888.0	93.8466	78.5576	63.0945	93.0979	92.2448
6.315301	891.592	1106.40	1209.66	10.8446	10.7239	1.33098	13.4566	93.4203	97.0982	88888.0	92.7388	77.7208	63.0945	90.4672	89.4731
6.417989	889.997	1103.67	1209.66	10.8665	10.7045	1.32446	13.4453	92.5905	95.9934	88888.0	90.5211	76.6045	64.7805	90.4672	89.4731
6.512412	894.942	1110.60	1209.66	10.8883	10.7017	1.32616	13.4678	91.2066	94.8880	88888.0	89.4113	76.6045	63.0945	90.0514	88.3633
6.614504	894.144	1110.60	1211.22	10.8528	10.7322	1.32560	13.4566	89.8217	92.3984	88888.0	88.3008	76.0461	64.7805	89.2197	87.2528
6.707458	892.390	1107.03	1209.66	10.8063	10.7017	1.33807	13.4902	88.9903	91.5678	88888.0	86.9118	76.6045	65.9037	90.3286	87.2528
6.802441	893.506	1108.50	1209.66	10.8446	10.7017	1.33693	13.4790	88.0198	91.5678	88888.0	86.0780	75.7669	65.9037	89.2197	85.5858
6.905070	892.230	1110.60	1209.66	10.8227	10.7017	1.34147	13.4622	87.6038	90.4598	88888.0	84.9655	76.0461	65.9037	88.2489	85.0299
6.998518	891.114	1106.82	1209.66	10.8063	10.6934	1.33523	13.4453	86.7714	89.3511	88888.0	83.8525	75.4875	64.7805	87.1388	83.9175
7.099386	897.015	1111.02	1209.66	10.8883	10.6934	1.33070	13.4603	85.6609	87.1319	88888.0	82.7388	75.2082	64.7805	87.0000	82.8044
7.193352	900.205	1112.69	1209.66	10.8528	10.7100	1.32560	13.4790	85.3832	87.1319	88888.0	82.1817	74.9288	64.7805	88.1102	82.8044
7.293597	889.997	1108.50	1209.66	10.8009	10.7128	1.33920	13.4865	84.2720	86.0213	88888.0	81.6244	75.2082	67.0264	87.1388	82.8044
7.386517	890.954	1107.03	1209.66	10.8501	10.7211	1.33467	13.4790	83.7161	86.0213	88888.0	81.0670	74.6494	65.9037	86.0280	81.6906
7.480937	891.911	1110.60	1209.66	10.8501	10.7239	1.33353	13.4902	83.7161	84.9100	88888.0	80.5094	73.8109	64.7805	85.6114	80.5763
7.585573	887.126	1105.14	1209.66	10.8774	10.7239	1.33693	13.4416	82.3257	83.2419	88888.0	79.3937	74.6494	65.9037	85.8892	80.5763
7.678534	894.463	1111.85	1211.22	10.8883	10.7239	1.34431	13.4603	82.0476	83.2419	88888.0	77.9982	73.8109	65.3422	84.9167	79.4613
7.782287	892.390	1112.69	1211.22	10.8774	10.7350	1.33013	13.4790	81.2127	82.6855	88888.0	77.7190	73.3916	64.7805	84.4997	78.3456
7.875582	890.954	1107.03	1209.66	10.8938	10.7267	1.32106	13.4827	81.2127	82.6855	88888.0	77.7190	73.8109	66.4651	85.3335	78.3456
7.968531	892.390	1110.60	1209.66	10.8883	10.7239	1.33693	13.4790	81.2127	81.5723	88888.0	77.7190	73.5314	64.7805	84.2217	78.3456
8.074189	889.997	1105.98	1209.66	10.8337	10.7128	1.33467	13.4678	80.0990	81.5723	88888.0	77.1605	72.9721	65.9037	85.8892	78.3456
8.166622	889.997	1110.60	1209.66	10.8883	10.7267	1.33353	13.4790	80.0990	80.4584	88888.0	77.1605	73.2518	65.3422	83.9436	76.6709

END FILE

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	TW-C4	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B
PARAMETER	TW-C5	TW-D1	TW-D2	TW-D3	TW-D4	FCALA 31941A	
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201
-1.180694	63.5377	63.8673	70.4396	63.6776	63.1412	63.1139	63.5166
-1.085501	63.6782	63.8673	71.1397	62.5536	62.4385	64.2374	63.5166
-.992403	61.2892	64.9956	71.1397	63.6776	65.5287	64.2374	63.6570
-.892926	61.2892	64.9956	70.4396	63.6776	64.1246	64.2374	63.6570
-.803006	63.6782	63.8673	71.4196	63.6776	63.8437	64.2374	63.5166
-.701064	64.3804	63.8673	71.1397	62.5536	63.1412	64.2374	63.5166
-.610668	62.1326	64.9956	70.8597	62.5536	63.8437	64.2374	63.6570
-.520213	63.5377	63.8673	71.4196	63.6776	63.1412	64.2374	63.5166
-.419392	63.5377	63.8673	71.1397	63.6776	63.1412	63.1139	63.5166
-.329001	62.4137	64.9956	70.8597	63.6776	63.8437	64.2374	63.6570
-.229113	62.4137	64.9956	70.9997	62.5536	64.2651	64.2374	63.6570
-.181471	63.5377	64.9956	70.4396	63.6776	63.1412	64.2374	63.5166
-.155871	63.6782	63.8673	71.4196	63.6776	62.4385	63.6757	62.9550
-.119307	64.6611	63.8673	71.1397	63.6776	63.1412	63.1139	63.5166
-.093707	61.2892	64.9956	70.4396	63.6776	64.1246	64.2374	63.6570
-.068107	62.9758	64.9956	70.4396	63.6776	64.1246	64.2374	63.6570
-.031074	62.9758	64.9956	70.9997	63.6776	63.8437	64.2374	63.6570
-.005474	64.6611	63.8673	71.1397	63.6776	63.1412	63.6757	63.2359
.031043	63.2568	63.8673	70.8597	62.5536	63.0007	63.6757	62.9550
.056643	61.4297	64.9956	70.8597	65.9236	64.6864	63.6757	63.5166
.082243	62.1326	64.9956	71.1397	72.6472	67.4930	64.2374	63.6570
.118771	62.1326	64.9956	71.5596	71.5281	67.6332	63.6757	63.5166
.144371	63.6782	62.7384	70.4396	68.1672	66.3708	63.6757	62.9550
.180970	63.6782	62.7384	70.4396	67.0457	66.3708	63.6757	62.9550
.206570	61.4297	63.8673	71.4196	67.0457	66.5111	63.6757	63.2359
.243573	61.0079	63.8673	71.1397	64.8008	65.8095	63.6757	63.2359
.269173	58.7568	62.7384	70.4396	64.2393	65.5287	63.6757	63.6570
.294773	55.6579	58.2170	68.0574	63.6776	64.1246	63.1139	63.5166
.332334	55.7989	56.5192	66.9354	62.5536	63.0007	63.1139	63.2359
.357934	54.2480	58.2170	66.9354	62.5536	63.1412	63.1139	63.2359
.394498	54.5301	59.3482	67.0756	62.5536	63.0007	61.9897	62.5338
.420098	54.6711	59.3482	67.0756	62.5536	63.1412	63.1139	62.9550
.445698	57.9121	58.2170	66.9354	62.5536	63.0007	63.1139	62.3934
.482239	59.0383	58.2170	66.6548	62.5536	62.4385	63.1139	62.3934
.507839	57.9121	59.3482	66.3741	62.5536	63.0007	63.1139	62.5338
.544897	77.8156	74.0001	81.4725	70.4085	65.8095	68.4454	68.1438
.570497	90.0507	89.6594	98.6630	120.165	101.966	112.503	108.070
.607067	88.9417	95.2209	102.523	182.367	158.305	169.433	171.103
.632667	163.381	241.082	303.925	233.805	206.164	226.705	212.887
.658267	471.414	542.223	870.003	386.598	322.496	402.272	318.264
.694866	707.416	645.084	1131.20	462.972	395.544	483.935	446.209
.720466	788.147	683.400	1188.34	459.650	413.177	501.819	490.411
.757034	838.508	722.102	1243.70	460.758	420.298	513.070	505.658
.782634	869.714	745.683	1285.25	465.739	425.737	517.455	512.649
.808234	895.870	761.198	1303.61	468.503	429.918	519.098	514.293
.845292	923.336	775.624	1318.78	466.845	432.563	521.836	515.389
.870892	935.219	790.566	1318.78	468.503	434.373	521.836	512.101
.907420	940.501	794.832	1325.10	466.845	434.651	522.931	508.949
.933020	950.536	796.965	1324.02	465.185	435.764	525.120	507.989

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570824 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER TW-C4 TW-C6 TW-D2 TW-D4 FCALB 31941B

PARAMETER TW-C5 TW-D1 TW-D3 FCALB 31941A

UNITS DEG F DEG F DEG F DEG F DEG F DEG F LBS LBS

NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	177.45	18/48
.969618	956.875	801.229	1327.38	466.292	437.155	525.120	509.360	.756146	.845547
.995218	959.516	801.229	1332.63	470.714	437.155	523.479	509.909	-.93199	.845547
1.020818	959.516	799.630	1338.95	471.267	437.155	525.120	510.046	.756146	.000000
1.057390	963.742	803.893	1340.03	471.267	437.155	524.026	512.101	.334111	.000000
1.082990	964.930	807.622	1343.26	470.714	434.651	525.120	511.553	-.50996	.000000
1.119983	970.345	803.893	1345.55	468.503	437.155	525.120	513.334	.334111	.000000
1.145583	975.363	806.557	1344.61	471.267	437.155	526.214	512.101	-.50996	.845547
1.171183	974.438	805.491	1342.18	470.714	437.155	525.120	511.553	.334111	.845547
1.207723	975.891	808.155	1344.61	468.503	437.155	526.214	512.238	.334111	.000000
1.233323	980.645	807.622	1339.49	470.714	437.434	526.214	513.334	-.08792	.845547
1.269916	981.834	811.883	1338.95	470.714	437.712	525.120	512.238	.334111	.000000
1.295516	982.890	808.688	1345.55	466.292	437.155	526.214	513.745	-.08792	.845547
1.332123	982.890	811.883	1341.11	471.267	437.434	527.308	516.758	-.93199	.845547
1.357723	983.815	807.622	1341.65	468.503	438.546	527.308	517.579	-.93199	.845547
1.383323	987.248	805.491	1346.23	470.714	438.824	527.855	517.305	.334111	.845547
1.420349	988.041	809.753	1348.65	470.714	438.546	527.855	517.716	-.08792	.845547
1.445949	988.041	810.818	1346.63	470.714	437.155	526.214	518.674	-.50996	.000000
1.482572	992.398	811.883	1356.20	471.267	437.155	527.855	518.401	.334111	.845547
1.508172	991.342	810.818	1363.90	469.609	437.712	530.589	518.674	.334111	.845547
1.533772	991.210	814.013	1372.41	472.924	439.102	528.129	518.811	-.08792	.845547
1.570341	990.285	810.818	1370.51	474.029	438.824	527.855	518.811	.334111	.845547
1.595941	992.266	811.883	1365.38	472.372	437.990	528.129	519.495	.334111	.845547
1.632500	995.699	816.675	1367.14	471.267	438.824	530.589	517.579	-.08792	.845547
1.658100	994.115	815.078	1366.06	467.121	438.824	530.589	518.811	-.08792	.845547
1.695110	993.323	816.675	1368.22	466.845	437.155	530.589	523.189	.334111	.845547
1.720710	991.342	819.337	1366.06	466.845	437.990	529.496	523.052	.334111	.000000
1.746310	996.492	812.682	1365.38	466.845	437.712	530.043	520.316	-.08792	.845547
1.838325	997.548	820.934	1370.51	472.924	437.712	529.496	519.769	-.08792	.845547
1.928238	1001.41	818.272	1366.06	466.292	437.434	531.683	523.052	.756146	.000000
2.028590	1004.05	820.934	1371.05	466.845	437.990	531.683	520.864	.756146	.000000
2.118586	1007.74	823.594	1359.17	467.121	438.546	531.683	513.334	.334111	.000000
2.208498	1004.57	824.659	1345.55	469.609	439.102	533.869	523.189	.334111	.000000
2.310903	1006.02	826.787	1369.16	464.079	439.241	533.869	523.189	.334111	.000000
2.400804	1010.11	822.530	1370.78	470.714	439.241	534.961	527.427	.756146	.000000
2.500742	1007.74	827.851	1363.90	466.292	439.102	529.496	525.513	.334111	.000000
2.590686	1005.89	829.713	1365.92	472.924	439.241	527.308	525.513	.756146	.000000
2.688296	1011.17	823.594	1371.46	470.714	440.771	531.683	528.657	.334111	.000000
2.781050	1019.35	821.200	1368.89	474.029	439.102	529.496	523.052	.334111	.000000
2.870941	1013.28	827.851	1371.05	466.292	440.215	530.589	526.880	.756146	.000000
2.972884	1015.92	831.043	1373.62	469.609	441.327	532.229	527.427	-.93199	.845547
3.062806	1014.47	824.659	1362.68	471.267	441.049	532.776	527.427	.756146	.000000
3.161154	1013.02	828.915	1358.50	470.714	440.215	532.229	525.787	.756146	.000000
3.250682	1013.41	827.851	1350.81	466.292	439.241	530.589	523.052	-.93199	.000000
3.340583	1018.03	828.915	1349.73	470.714	442.438	533.869	523.189	.756146	.000000
3.440993	1016.44	824.659	1355.26	468.503	440.354	534.961	518.127	.334111	.000000
3.530894	1018.69	826.787	1349.86	474.029	441.327	533.869	521.958	.334111	.000000
3.629225	1021.19	826.787	1360.66	472.924	440.215	533.869	521.000	.756146	.000000
3.718720	1019.74	829.713	1350.94	472.924	440.215	533.869	519.495	.334111	.000000
3.816650	1019.61	820.934	1357.01	472.924	439.241	532.776	525.513	-.08792	.845547

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-115 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 203 LU 15 FROM 43/ 0 TO 72/95 FILE STARTING T.O.D. 17:53:40.570R24 T.C.V. ON T.O.D. 17:53:41.751518

PARAMETER	TW-C4	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 319418
PARAMETER	TW-C5	TW-D1	TW-D2	TW-D3	TW-D4	FCALA 31941A	
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201 17/ 45 18/ 48
3.909524	1016.44	828.915	1354.58	468.503	439.937	533.869	523.052 -.50996 .000000
3.999417	1020.93	828.915	1355.12	469.609	440.354	533.869	526.333 .756146 .000000
4.097796	1016.58	823.594	1354.85	470.714	439.241	533.869	521.958 .756146 .000000
4.188236	1018.55	828.915	1354.58	472.924	441.327	536.054	523.189 -.93199 .000000
4.287491	1015.39	829.447	1351.89	475.686	440.215	534.961	520.864 .334111 .845547
4.377459	1013.81	829.447	1350.81	474.029	441.466	534.961	519.769 -.50996 .000000
4.467862	1015.52	825.191	1347.71	469.609	439.241	534.961	520.864 .334111 .845547
4.568770	1022.25	829.447	1359.58	470.714	441.466	536.054	521.000 .334111 .000000
4.658251	1017.63	833.170	1357.28	475.134	441.327	536.054	525.513 .334111 .000000
4.760140	1015.39	826.787	1349.73	475.134	439.937	536.054	522.232 .334111 .845547
4.854042	544.690	440.460	658.038	280.184	261.777	302.104	363.189 .756146 .000000
4.954845	284.801	240.807	318.155	121.803	123.615	127.247	188.867 -.08792 .845547
5.049370	191.935	159.808	202.802	77.1172	77.5648	78.7881	98.0280 .334111 .845547
5.143308	142.996	123.616	153.999	68.1672	68.7547	69.8462	74.9953 -.08792 .845547
5.245528	119.211	102.980	125.532	65.9236	66.3708	67.6045	67.4434 .334111 .845547
5.339914	106.884	96.8862	113.648	65.9236	65.5287	65.3604	66.3222 .334111 .000000
5.444108	103.722	96.3313	110.496	63.6776	64.6864	65.3604	64.6393 .334111 .000000
5.536044	102.483	94.1099	107.063	64.2393	64.1246	65.3604	64.6393 .334111 .000000
5.629972	99.3134	92.4422	104.863	63.6776	64.1246	64.2374	63.6570 -.08792 .845547
5.734638	97.1055	91.8860	102.523	63.6776	64.1246	64.2374	63.6570 .756146 .000000
5.827584	93.6505	90.7730	101.697	64.2393	64.1246	64.2374	63.5166 .334111 .845547
5.929838	93.3739	87.9878	98.1109	63.6776	64.1246	63.6757	63.2359 .334111 .845547
6.024253	89.7735	88.5452	97.0062	63.6776	65.5287	64.2374	63.6570 .756146 .845547
6.124554	88.2482	87.9878	94.9332	63.6776	65.5287	64.2374	63.6570 .756146 .000000
6.222365	86.9993	87.4302	94.5183	63.6776	65.5287	64.2374	63.6570 .334111 .845547
6.315301	88.2482	83.5228	92.8579	63.6776	62.7196	63.6757	63.2359 .334111 .000000
6.417989	87.1381	83.5228	91.4731	63.6776	63.8437	63.6757	63.2359 .756146 .000000
6.512412	85.6107	82.9639	89.8100	63.6776	64.1246	63.6757	63.2359 .334111 .845547
6.614504	85.3328	81.8457	89.2553	63.6776	63.8437	63.6757	62.9550 .334111 .845547
6.707458	81.4387	82.9639	88.1454	64.2393	64.1246	63.6757	63.5166 .334111 .000000
6.802441	83.9430	81.8457	87.1738	62.5536	63.1412	63.6757	63.5166 -.08792 .845547
6.905070	80.8817	81.8457	87.0349	63.6776	64.2651	63.6757	63.5166 .334111 .845547
6.998518	83.9430	78.4872	85.3679	63.6776	63.1412	63.6757	63.2359 .334111 .000000
7.099386	81.4387	78.4872	84.8119	63.6776	63.8437	63.6757	63.2359 -.08792 .845547
7.193352	78.0945	78.4872	84.2558	63.6776	64.2651	63.6757	63.5166 -.08792 .845547
7.293597	78.0945	78.4872	83.9776	62.5536	63.8437	63.6757	63.2359 .334111 .000000
7.386517	78.9311	77.3664	82.5863	63.6776	63.1412	63.6757	63.5166 .334111 .000000
7.480937	78.0945	77.3664	81.6118	62.5536	63.1412	63.6757	63.0955 -.08792 .845547
7.585573	76.6523	76.2449	80.9154	63.6776	64.1246	63.6757	62.5338 .334111 .000000
7.678534	76.0015	76.2449	80.3581	63.6776	64.1246	63.6757	63.2359 .334111 .000000
7.782287	77.1181	74.5615	79.3824	62.5536	63.1412	63.1139	63.5166 .334111 .000000
7.875582	75.0240	76.2449	79.3824	63.1157	64.1246	63.6757	63.5166 .756146 .000000
7.968531	76.0015	74.5615	78.9642	63.6776	63.8437	63.6757	63.2359 .334111 .000000
8.074189	73.6267	74.8422	79.3824	63.1157	64.1246	63.6757	63.5166 -.08792 .000000
8.166622	75.8619	74.0001	78.2668	63.6776	63.8437	63.6757	63.2359 -.08792 .845547

END FILE

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	F-A	PC-1		POJI		POFM		WLO2-1		PFJ		PFV-1		PGFI	
PARAMETER		F-B	PC-2	POJ	POFM	PGOT	LB-W	WLO2-2	PFVD	PFV-2					
UNITS	LBS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
-1.180408	61.7807	63.7774	13.9991	14.1087	14.5531	13.4075	874.721	869.438	.000200	-0.00018	14.6539	1496.58	1475.82	1478.39	12.3888
-1.089592	62.6194	63.7774	13.7606	14.1087	14.5531	13.4075	831.572	867.654	.037476	.023529	14.2329	1495.30	1474.56	1475.52	12.3888
-.999687	61.3614	62.0898	14.2376	14.1087	14.5531	13.4075	792.822	860.205	4.59830	4.58455	14.3382	1496.58	1474.56	1475.52	12.3888
-.897214	61.7807	63.7774	14.2376	14.1087	14.5531	13.4075	814.605	853.910	3.25038	3.24048	14.6539	1496.58	1474.56	1475.52	12.3888
-.807355	61.3614	62.0898	14.2376	14.1087	14.5531	15.3036	812.092	851.811	3.19386	3.18253	14.2329	1495.30	1474.56	1475.52	12.3888
-.708257	61.3614	62.0898	14.4761	14.1087	14.5531	13.4075	819.214	850.133	3.05919	3.04061	14.2329	1495.30	1474.56	1475.68	12.3888
-.617460	59.4744	62.0898	14.2376	14.1087	14.4459	14.4609	815.653	850.133	3.00748	2.99550	14.2329	1495.30	1474.56	1475.52	12.3888
-.527029	60.1034	59.5584	14.4761	14.1087	14.5531	14.4609	818.166	850.133	2.99065	2.97706	14.2329	1495.30	1474.56	1475.52	12.3888
-.425750	61.3614	62.0898	14.2376	14.1087	14.5531	14.4609	819.214	850.133	2.97141	2.95533	14.3382	1495.30	1474.56	1475.52	12.3888
-.335848	61.3614	59.9803	14.2376	14.1087	14.4459	14.4609	818.166	850.133	2.95698	2.94282	14.2329	1495.30	1474.56	1475.52	12.3888
-.235432	61.3614	63.7774	14.2376	14.1087	14.5531	14.4609	819.737	850.133	2.95458	2.94084	14.2329	1495.30	1474.56	1475.52	12.3888
-.178851	61.3614	63.7774	14.4761	14.1087	14.5531	14.4609	819.737	850.552	2.94376	2.93360	14.6539	1496.58	1475.82	1476.48	12.3888
-.153251	61.3614	62.9336	14.2376	14.1087	14.5531	14.4609	818.166	850.552	2.94376	2.93426	14.6539	1496.58	1474.56	1475.68	12.3888
-.116277	61.3614	59.9803	14.2376	14.1087	14.4459	14.4609	818.585	850.133	2.94977	2.94084	14.3382	1495.30	1474.56	1475.52	12.3888
-.090677	61.3614	63.7774	13.7606	14.5311	14.4459	14.4609	819.632	850.552	2.94436	2.93755	14.6539	1496.58	1474.56	1475.52	12.3888
-.065077	61.3614	63.7774	14.2376	14.1087	14.5531	14.4609	821.308	850.552	2.94255	2.93426	14.2329	1495.30	1474.56	1475.52	12.3888
-.028466	61.3614	63.7774	14.2376	14.1087	14.5531	14.4609	895.038	850.552	2.65878	2.61750	14.2329	1495.30	1474.56	1475.52	12.3888
-.002866	61.3614	64.6212	14.2376	14.1087	14.4459	14.4609	879.119	852.651	1.46837	1.43082	14.2329	1495.30	1475.82	1475.68	12.3888
.033663	61.3614	63.7774	14.4761	14.1087	14.5531	14.4609	846.548	853.910	.423457	.398236	14.2329	1495.30	1474.56	1475.52	12.3888
.059263	61.3614	62.9336	14.2376	14.1087	29.8779	19.5172	876.396	856.847	.231068	.151943	14.8644	1492.75	1472.03	1472.66	12.3888
.084863	59.2648	59.9803	13.7606	14.5311	205.202	49.0125	860.687	858.526	.154713	.126919	18.6535	1482.54	1462.55	1462.80	12.3888
.121392	59.2648	62.0898	14.2376	14.1087	412.891	59.9678	851.680	860.205	.134873	.138114	21.6006	1470.41	1449.91	1450.07	12.3888
.146992	58.8455	59.9803	14.4761	14.1087	412.355	59.1251	881.633	860.625	.167339	.146675	23.2846	1457.97	1439.17	1439.57	12.3888
.184041	57.7971	58.7146	13.9991	14.1087	400.245	58.2824	876.396	861.884	.131266	.134822	23.6004	1446.80	1427.16	1427.48	12.3888
.209641	57.5875	59.9803	14.2376	14.1087	400.888	57.0183	854.927	863.562	.150505	.138114	25.3896	1441.70	1422.10	1422.07	12.3888
.246212	57.5875	59.5584	14.2376	14.1087	403.889	57.0183	877.234	863.562	.192590	.102553	25.3896	1442.34	1422.10	1422.07	12.3888
.271812	59.2648	60.1913	15.4300	14.7423	405.389	57.0183	876.606	865.241	.125253	.105846	26.0212	1442.66	1424.63	1424.62	12.3888
.297412	61.3614	62.9336	16.1454	16.2205	406.890	57.0183	859.221	865.241	.148100	.103212	27.7052	1445.53	1426.52	1427.48	12.3888
.333996	57.5875	59.9803	15.6685	14.7423	408.819	57.0183	881.738	866.080	.163731	.134822	29.1787	1446.80	1427.16	1427.80	12.3888
.359596	62.6194	65.4650	15.1915	14.5311	410.747	57.4397	873.255	866.080	.112027	.105846	29.3892	1447.44	1427.47	1429.07	12.3888
.396214	59.4744	59.9803	15.4300	14.7423	413.212	57.0183	860.477	866.080	.096996	.100907	30.2312	1449.36	1430.32	1429.71	12.3888
.421814	60.5228	62.0898	15.4300	14.8478	415.356	56.5970	885.194	866.920	.133670	.134822	30.3365	1450.63	1431.58	1430.98	12.3888
.447414	62.2001	64.6212	15.4300	14.7423	417.606	56.5970	868.227	866.920	.097297	.090370	30.8628	1451.91	1432.21	1431.94	10.4884
.484436	60.1034	60.1913	15.1915	14.7423	418.892	60.3892	862.363	867.339	.109622	.071602	31.0733	1452.87	1432.53	1433.53	12.3888
.510036	67.6513	68.8402	15.1915	14.7423	420.178	176.263	792.612	866.920	.494400	.454211	30.8628	1452.55	1434.11	1433.53	12.3888
.546593	111.471	113.562	29.0234	24.8791	421.678	357.027	755.747	864.192	2.67080	2.67611	32.8625	1452.55	1434.11	1433.85	12.3888
.572193	237.898	238.445	78.1505	71.5509	422.536	636.389	772.504	861.884	4.25200	4.24178	63.4909	1450.63	1431.58	1430.98	12.3888
.608774	295.765	298.355	97.4674	92.2470	422.321	646.502	768.524	857.687	4.67165	4.64974	115.380	1440.42	1421.47	1421.12	12.3888
.634374	464.753	461.209	186.898	166.162	419.750	633.018	767.477	856.008	4.69510	4.66884	261.575	1381.08	1397.13	1397.89	10.4884
.659974	1275.31	1264.51	535.318	504.057	413.105	728.035	802.038	853.910	4.56043	4.52265	868.985	1062.66	1363.95	1363.53	12.3888
.696550	1451.43	1460.27	605.193	600.779	413.105	730.774	805.389	852.651	3.91893	3.89045	1098.75	1081.80	1370.91	1369.58	12.3888
.722150	1425.43	1434.96	595.177	591.910	414.606	724.032	803.504	851.811	3.66582	3.65074	1086.96	1112.43	1371.54	1370.85	10.4884
.759180	1417.88	1422.30	593.508	585.152	414.391	720.661	801.200	850.552	3.60389	3.59016	1076.23	1108.60	1366.96	1367.35	12.3888
.784780	1416.62	1423.14	594.462	585.785	414.070	719.819	800.990	850.552	3.60389	3.58687	1072.44	1104.78	1365.85	1364.81	12.3888
.810380	1417.04	1423.57	596.131	587.264	412.248	719.397	800.362	850.133	3.59848	3.58292	1070.75	1102.22	1363.32	1362.58	12.3888
.846926	1412.85	1421.46	596.489	588.531	249.998	717.712	798.896	850.133	3.59427	3.57304	1067.60	1099.67	1361.42	1360.99	12.3888
.872526	1419.56	1426.52	598.754	590.643	125.685	720.661	801.305	849.293	3.60389	3.58160	1066.33	1097.76	1361.42	1360.99	10.4884
.909149	1419.56	1426.52	600.424	592.332	81.5321	719.819	801.305	848.874	3.59788	3.57435	1065.17	1097.12	1361.74	1361.94	9.22147
.934749	1417.88	1423.14	600.662	592.332	67.8148	719.397	800.362	848.874	3.58886	3.56974	1065.07	1097.12	1363.32	1362.26	11.1218

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	F-A	PC-1		POJ1		POFM		WLO2-1		PFJ		PFV-1		PGFT	
PARAMETER	F-B	PC-2		POJ		PGOT		WLO2-2		PFVD		PFV-2		PSIA	
UNITS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	LB-W	LB-W	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
.971289	1417.88	1423.14	602.093	593.599	59.8845	718.976	799.629	847.405	3.58886	3.56974	1064.86	1095.20	1363.32	1362.26	12.3888
.996889	1418.72	1425.68	603.047	593.599	56.4552	718.976	798.896	848.454	3.58706	3.56711	1064.23	1095.20	1363.32	1363.22	10.4884
1.022489	1417.04	1423.57	603.285	593.599	51.0968	717.712	798.896	848.454	3.57503	3.56184	1063.39	1095.20	1363.95	1363.22	12.3888
1.059529	1417.88	1423.78	604.955	593.599	47.2388	717.712	799.315	848.454	3.57624	3.55690	1063.39	1094.57	1363.32	1362.90	12.3888
1.085129	1417.46	1423.57	605.670	593.599	44.4525	717.712	798.058	848.454	3.56962	3.55196	1062.75	1094.57	1363.32	1362.90	10.4884
1.121743	1417.88	1422.30	605.670	592.543	41.9877	716.448	797.011	847.510	3.56301	3.54604	1062.75	1093.29	1363.32	1362.26	10.4884
1.147343	1416.62	1423.14	606.624	592.543	40.5945	716.448	797.220	848.454	3.56541	3.54538	1062.75	1093.29	1363.32	1362.58	10.4884
1.172943	1419.77	1428.21	608.055	593.599	38.8799	718.976	799.315	848.454	3.56541	3.54110	1061.49	1094.57	1363.32	1362.26	9.85493
1.209505	1419.56	1426.52	608.055	593.599	37.5939	718.976	800.362	848.454	3.56541	3.54604	1060.96	1094.57	1363.32	1362.26	10.4884
1.235105	1422.49	1429.05	608.532	595.289	37.5939	719.819	801.200	848.454	3.56782	3.54999	1062.75	1093.29	1363.32	1362.26	12.3888
1.271665	1422.08	1429.05	608.055	595.289	36.7365	718.976	799.524	848.454	3.56541	3.54637	1060.96	1094.57	1363.32	1362.26	10.4884
1.297265	1423.12	1430.32	608.770	597.401	36.8437	720.661	800.781	848.454	3.56421	3.54472	1060.96	1093.29	1363.95	1363.22	12.3888
1.334318	1422.49	1429.89	608.055	596.028	36.8437	718.976	800.153	847.405	3.56000	3.54340	1060.96	1094.57	1363.32	1362.26	12.3888
1.359918	1423.75	1430.32	608.532	597.823	36.8437	719.819	800.153	848.454	3.55820	3.54011	1060.65	1092.65	1363.95	1363.22	10.4884
1.385518	1422.49	1429.89	608.055	595.711	36.7365	717.712	798.477	848.454	3.55038	3.53287	1060.12	1092.65	1363.32	1362.90	10.4884
1.422112	1420.82	1429.05	606.386	595.711	36.8437	717.290	797.011	848.454	3.54738	3.53089	1060.44	1092.01	1363.95	1362.90	11.1218
1.447712	1424.59	1431.58	608.055	595.922	36.7365	720.661	799.629	848.874	3.54978	3.53418	1060.02	1092.01	1363.95	1363.22	12.3888
1.484277	1426.27	1433.27	608.055	595.711	36.7365	720.661	800.781	848.454	3.55820	3.53550	1060.02	1092.65	1363.95	1362.90	12.3888
1.509877	1421.24	1429.05	604.955	594.866	36.8437	717.290	797.639	848.454	3.54497	3.52496	1060.02	1092.01	1363.95	1363.22	10.4884
1.535477	1421.24	1429.05	605.193	594.021	36.7365	717.290	797.011	848.454	3.53896	3.51970	1059.81	1092.01	1363.95	1363.22	12.3888
1.572052	1426.48	1434.11	606.624	595.922	36.7365	721.083	801.200	848.454	3.55339	3.53287	1059.81	1092.01	1363.95	1363.22	12.3888
1.597652	1425.43	1432.43	604.716	594.444	36.7365	718.976	799.315	848.454	3.54858	3.53089	1060.02	1092.01	1364.58	1363.53	12.3888
1.634669	1425.43	1432.43	604.001	595.289	36.7365	718.976	798.686	848.454	3.55038	3.53089	1059.81	1092.01	1363.95	1363.22	12.3888
1.660269	1426.27	1433.27	604.120	595.289	36.7365	719.819	800.362	848.454	3.54858	3.53089	1060.02	1092.01	1363.95	1363.22	10.4884
1.696857	1426.27	1431.58	603.524	595.289	36.7365	719.819	799.524	847.405	3.55339	3.53221	1059.81	1092.01	1363.32	1362.90	10.4884
1.722457	1426.27	1433.27	602.808	593.599	36.7365	718.976	798.058	848.874	3.55579	3.53484	1059.28	1092.01	1363.95	1363.53	12.3888
1.748057	1423.12	1430.32	602.093	593.599	36.7365	717.712	797.430	848.874	3.54377	3.52167	1059.18	1092.01	1363.95	1363.22	12.3888
1.842542	1430.04	1436.64	602.808	594.444	13.3742	719.819	799.629	848.874	3.54978	3.52529	1064.33	1098.40	1376.91	1376.90	10.4884
1.932962	1426.48	1432.43	600.424	592.543	14.4459	718.976	798.058	848.874	3.53535	3.51476	1064.33	1097.12	1373.43	1372.12	12.3888
2.031929	1426.27	1434.11	599.231	593.599	14.4459	718.976	799.315	849.293	3.53656	3.51179	1062.75	1095.52	1370.27	1368.78	12.3888
2.122707	1430.04	1436.64	599.708	594.021	14.1244	721.083	801.828	849.293	3.54497	3.52496	1061.49	1094.57	1368.38	1367.35	12.3888
2.212638	1430.46	1437.07	598.993	593.599	14.2316	721.083	801.200	849.713	3.54377	3.52529	1060.86	1093.29	1366.80	1367.03	12.3888
2.313682	1430.04	1434.11	598.039	591.910	14.4459	719.397	800.362	850.133	3.54076	3.51739	1059.28	1092.65	1366.80	1367.03	9.85493
2.403580	1432.14	1439.18	598.277	594.021	14.2316	721.293	801.305	850.133	3.55339	3.53089	1060.02	1093.29	1366.80	1367.03	12.3888
2.505505	1432.98	1439.18	598.039	593.599	14.4459	721.293	801.828	850.133	3.54978	3.52233	1059.28	1092.01	1366.80	1366.72	12.3888
2.595417	1432.56	1439.18	597.323	592.332	14.0172	720.661	801.200	850.133	3.54858	3.52431	1059.18	1092.01	1366.48	1366.72	12.3888
2.692472	1431.30	1437.28	597.085	592.543	14.4459	720.661	800.990	850.133	3.54497	3.52233	1059.18	1092.01	1366.48	1366.40	12.3888
2.785725	1431.30	1437.07	596.489	592.332	14.0172	720.661	800.990	850.133	3.55038	3.53089	1059.18	1092.01	1366.80	1367.03	12.3888
2.875611	1430.46	1437.07	596.131	591.910	14.4459	719.819	800.990	850.133	3.54076	3.52496	1058.33	1092.01	1366.80	1367.03	12.3888
2.975542	1432.14	1439.18	596.489	592.332	14.0172	721.083	801.200	850.133	3.54858	3.53089	1058.75	1092.01	1366.80	1367.03	12.3888
3.065432	1431.51	1437.07	595.892	591.910	14.2316	719.819	799.524	850.133	3.54076	3.52003	1058.33	1090.42	1366.80	1367.03	12.3888
3.167372	1432.98	1439.18	596.131	592.332	14.0172	719.819	799.524	850.133	3.54858	3.52496	1058.75	1092.01	1366.80	1367.35	12.3888
3.257313	1435.49	1443.40	597.562	593.599	14.4459	722.347	803.504	850.133	3.55940	3.53550	1059.18	1092.01	1366.80	1367.35	12.3888
3.347222	1431.51	1436.64	595.654	591.910	14.2316	719.819	800.362	850.133	3.54076	3.51904	1057.60	1090.10	1366.80	1367.03	10.4884
3.445587	1432.98	1437.07	596.131	592.332	13.8029	720.661	801.200	850.552	3.54978	3.52529	1058.75	1092.01	1366.80	1367.35	12.3888
3.535482	1435.91	1443.40	597.323	594.021	14.2316	721.293	802.876	850.552	3.56541	3.53550	1058.75	1092.01	1366.80	1367.03	12.3888
3.635995	1433.19	1440.86	597.323	593.599	14.4459	721.083	802.247	851.811	3.55219	3.53155	1058.44	1090.42	1366.96	1368.31	12.3888
3.725810	1435.49	1442.55	597.323	593.599	14.2316	722.347	804.761	851.811	3.55339	3.53418	1058.33	1090.42	1366.80	1367.35	10.4884
3.822510	1435.91	1443.40	597.323	594.444	14.5531	722.347	802.876	851.811	3.55579	3.53484	1058.33	1092.01	1366.96	1367.99	10.4884

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	F-A		PC-1		POJI		POFM		WL02-1		PFJ		PFV-1		PGFT
PARAMETER	F-A	F-B	PC-1	PC-2	POJI	POJ	PGOT		WL02-1	WL02-2	PFJ	PFVD	PFV-1	PFV-2	PGFT
UNITS	LBS	LBS	PSIA	PSIA	PSIA	PSIA	PSIA	PSIA	LB-W	LB-W	PSIA	PSIA	PSIA	PSIA	PSIA
NEFF/ADC	15/ 41	16/ 44	33/ 89	34/ 92	35/ 93	14/ 40	13/ 33	12/ 32	4/ 12	5/ 13	23/ 61	22/ 60	20/ 56	21/ 57	19/ 49
3.915615	1436.33	1443.40	597.323	594.021	14.2316	722.347	802.876	851.811	3.56541	3.54110	1058.86	1090.74	1366.80	1367.35	12.3888
4.005575	1432.98	1440.02	596.369	593.599	14.5531	720.661	801.200	851.811	3.55339	3.53089	1058.44	1092.01	1366.80	1367.35	10.4884
4.105514	1434.86	1440.02	596.369	594.021	14.2316	721.083	801.305	851.811	3.55339	3.53089	1057.49	1090.10	1366.96	1367.99	10.4884
4.195399	1435.91	1442.55	596.369	594.021	14.2316	721.293	801.200	851.811	3.55339	3.53353	1058.33	1090.42	1366.96	1368.31	10.4884
4.297234	1436.54	1442.55	597.323	594.021	14.0172	722.347	804.761	851.811	3.55579	3.53221	1057.60	1090.10	1366.96	1368.62	12.3888
4.387129	1436.33	1443.40	596.369	594.444	14.5531	721.083	802.876	852.231	3.55339	3.53287	1058.33	1092.01	1368.38	1367.35	12.3888
4.476634	1439.27	1445.93	597.562	595.289	14.4459	723.189	802.876	852.231	3.56662	3.54077	1058.33	1092.01	1368.38	1367.67	10.4884
4.575965	1435.91	1442.55	596.369	594.021	14.2316	720.661	802.876	852.651	3.55219	3.53287	1057.60	1090.10	1369.01	1367.35	12.3888
4.666343	1439.90	1448.46	598.396	595.711	14.2316	724.453	806.227	852.651	3.56902	3.54637	1058.44	1092.01	1368.38	1367.67	12.3888

END FILE



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	PFJC	PFVC-1		TOJ		TOBL		TFVI		TTCVI		TRCFU		PH2O=00T	
PARAMETER	PFVCD	PFVC-2		TOFM		TFJ		TTCJ		TRCAO		TH2OI			
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA	
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
-1.180408	14.5531	1293.97	1298.81	1296.05	-118.28	-274.06	-279.48	59.6669	67.1663	68.2110	54.7751	65.9850	35.8121	63.1810	91.8694
-1.089592	14.5531	1293.97	1298.81	1295.63	-117.91	-273.77	-275.11	59.7813	67.0513	68.0968	54.7751	66.1529	35.9594	63.7159	90.6836
-0.999687	14.5531	1293.97	1298.81	1295.63	-119.13	-273.50	-256.70	59.7813	67.1663	68.0968	54.7751	66.5446	35.8121	63.4626	91.8694
-0.897214	14.5531	1293.76	1298.81	1295.63	-114.83	-273.50	-256.16	59.7813	67.1663	68.1540	54.7751	66.1529	35.8121	63.4767	93.2924
-0.807355	14.5531	1293.97	1298.81	1295.63	-111.87	-273.50	-256.16	59.7813	67.1663	68.0968	54.8037	66.2089	35.8121	62.9839	92.3437
-0.708257	14.5531	1293.97	1298.81	1295.63	-109.62	-273.50	-259.39	59.7813	67.1663	68.0968	54.8037	66.1529	36.0182	63.2514	90.8614
-0.617460	14.5531	1293.97	1298.81	1295.63	-107.46	-273.77	-260.47	59.7813	67.1663	68.1540	54.7751	66.3209	35.8121	63.4767	92.3437
-0.527029	14.5531	1293.76	1298.81	1295.63	-106.37	-273.50	-261.56	59.7813	67.1663	68.1540	54.8037	66.2089	35.8121	63.4767	90.8614
-0.425750	14.5531	1293.76	1298.81	1295.63	-104.73	-273.50	-261.56	59.7813	67.1663	68.1540	54.7751	66.1529	36.0182	63.4767	91.8694
-0.335848	14.5531	1293.76	1298.81	1295.63	-104.83	-273.24	-263.73	59.7813	67.1663	68.0968	54.7751	66.5446	35.8121	63.7159	90.8021
-0.235432	14.5531	1293.76	1298.81	1295.63	-102.74	-273.50	-264.28	59.7813	67.1663	68.0968	54.8895	65.9850	35.8121	63.3640	90.8021
-0.178851	14.5531	1293.76	1298.81	1296.05	-101.93	-273.24	-264.28	59.7813	67.1663	68.1540	54.8895	66.2089	35.8121	63.4767	90.8614
-0.153251	14.5531	1293.76	1298.81	1296.05	-101.61	-273.24	-264.82	59.7813	67.0513	68.1540	54.8895	66.0970	35.9594	63.4767	90.4464
-0.116277	14.5531	1293.76	1298.81	1295.63	-101.25	-273.24	-264.82	59.7813	67.1663	68.0968	54.7751	66.2648	35.8121	63.7159	90.8021
-0.090677	14.5531	1293.97	1298.81	1295.63	-100.76	-273.24	-264.55	59.7813	67.1663	68.0968	54.7751	65.9850	36.1361	63.7159	90.4464
-0.065077	14.5531	1293.76	1298.81	1295.63	-100.22	-273.24	-264.14	59.7813	67.1663	68.0968	54.7751	66.1529	36.0182	63.1246	90.8614
-0.028466	14.5531	1293.76	1298.81	1295.63	-100.18	-273.24	-263.73	59.7813	67.1663	68.0968	54.7751	66.2648	35.7826	63.4767	90.8021
-0.002866	14.5531	1293.97	1298.81	1295.63	-99.592	-273.50	-263.73	59.7813	67.2238	68.0968	54.7751	66.0970	35.7236	63.3640	90.2092
.033663	14.5531	1293.97	1298.81	1295.63	-98.785	-273.24	-263.46	59.7813	67.1663	68.1540	54.7751	66.3769	35.8121	63.4767	90.8614
.059263	24.6598	1294.18	1298.81	1295.63	-87.103	-273.24	-263.19	59.8386	67.1663	68.2110	54.7751	66.0970	35.8121	63.7159	92.3437
.084863	58.1381	1294.60	1298.81	1295.63	-50.281	-273.50	-263.73	60.3531	67.0513	68.1540	54.7751	63.7424	35.9594	63.6315	92.5809
.121392	79.6148	1294.18	1299.65	1295.63	-20.728	-273.50	-262.92	60.5817	66.8211	68.2110	54.7751	66.1529	36.0182	63.5471	91.8694
.146992	83.4048	1294.60	1299.65	1295.63	-10.318	-273.50	-261.56	60.3531	66.2454	68.2110	54.8037	66.0970	35.8121	63.7159	90.8614
.184041	84.6682	1293.76	1299.65	1295.63	-3.4865	-273.24	-261.83	60.1245	65.6694	68.2110	54.7751	66.0970	35.7826	63.5471	90.8636
.209641	84.6682	1293.76	1298.81	1295.63	1.75317	-273.24	-261.56	59.7813	65.2082	68.2110	54.7751	66.5446	35.8121	63.7159	90.8021
.246212	120.673	1292.49	1296.28	1292.67	3.79086	-273.24	-261.02	59.6669	64.7468	68.2396	54.8895	66.0970	35.9594	63.4344	90.8021
.271812	484.830	1176.61	1281.98	1277.89	6.27254	-273.24	-261.29	59.4381	64.2851	68.2110	58.4605	66.3209	36.3128	63.7159	93.7667
.297412	706.861	831.481	1253.37	1248.11	8.59557	-273.50	-260.47	59.3236	64.0542	68.2110	59.9130	66.3209	36.0182	63.7159	93.2924
.333996	587.476	599.500	1231.50	1228.89	10.5383	-273.50	-261.29	59.2091	63.9387	68.0968	53.3181	66.0970	36.0182	63.5751	90.4464
.359596	533.152	557.150	1244.96	1241.56	12.2532	-273.50	-261.02	58.8656	63.8232	67.6968	55.9769	66.0970	36.0182	63.0261	90.6836
.396214	528.099	553.989	1256.32	1255.08	13.8905	-273.50	-260.75	58.5220	63.5633	66.8393	53.6575	66.3209	36.4305	63.8143	92.3437
.421814	528.099	553.989	1256.32	1252.54	15.3026	-273.50	-260.75	58.2928	64.0542	66.0954	53.8582	67.2158	36.3128	63.7159	90.8021
.447414	526.836	552.936	1253.37	1249.16	16.3421	-273.50	-260.47	57.9490	64.0542	65.5226	54.2021	66.1529	36.3128	63.6033	90.8614
.484436	525.256	551.250	1249.59	1247.05	16.7132	-273.50	-259.80	57.8342	64.0542	65.0068	54.2021	66.0970	36.0477	63.5751	90.6836
.510036	524.941	550.829	1249.17	1244.73	-56.081	-273.50	-259.80	57.6049	63.9387	64.7775	53.8582	66.4327	35.9594	63.7440	89.9721
.546593	524.309	550.829	1249.17	1244.73	-231.19	-273.63	-259.80	57.3754	64.0542	64.4333	53.6287	66.8802	36.1361	63.5892	92.3437
.572193	524.309	550.829	1249.59	1246.21	-258.40	-273.50	-259.80	60.1245	63.8232	64.3185	53.4567	66.1529	35.8121	63.4626	92.6995
.608774	524.941	551.671	1249.59	1246.21	-253.32	-273.50	-259.66	64.6854	63.2454	64.4333	53.1985	66.1529	35.9594	63.7159	90.8021
.634374	529.994	553.778	1249.80	1247.05	-252.65	-273.77	-259.80	68.3157	60.5822	64.3185	53.1697	67.2158	36.0772	63.7159	90.8614
.659974	595.687	607.718	1249.80	1247.47	-255.32	-273.63	-259.12	64.3442	57.7936	64.3185	53.2845	66.3769	36.4894	63.7440	92.1066
.696550	650.642	666.292	1251.69	1247.05	-256.72	-273.63	-259.80	63.0920	63.1298	64.5480	53.0550	66.4327	37.1368	63.8143	94.6561
.722150	656.327	675.352	1249.59	1247.90	-257.73	-273.63	-259.80	63.5191	64.2851	64.5768	52.9688	66.3769	37.9011	63.7159	95.1897
.759180	655.696	676.406	1249.80	1247.90	-258.94	-273.50	-259.80	63.4336	63.5344	64.8062	52.7393	65.9850	39.4275	63.4626	94.6561
.784780	655.696	676.827	1252.53	1247.47	-260.02	-273.77	-259.80	63.0920	63.8232	65.0355	52.7393	66.1529	41.1849	63.2374	94.4782
.810380	656.327	675.984	1251.69	1247.47	-260.02	-274.06	-260.47	63.2059	64.7468	65.5226	52.3658	66.1809	42.8217	63.8143	94.5968
.846926	655.696	676.406	1249.59	1247.90	-261.58	-274.09	-260.47	63.4336	65.7846	65.5226	52.3084	69.7275	44.6879	63.7440	94.4782
.872526	656.327	675.352	1249.59	1247.90	-262.05	-274.09	-259.66	64.0028	66.2454	65.5226	52.0212	79.0376	46.0847	63.3640	93.5296
.909149	656.327	676.406	1252.53	1247.90	-262.73	-274.06	-259.87	64.6854	66.8211	65.5226	51.7912	90.8577	47.5369	63.4626	94.6561
.934749	656.327	676.406	1251.69	1247.90	-263.21	-274.09	-260.47	65.1400	67.0513	65.5799	51.5037	98.6750	48.4070	63.1810	94.2411



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	PFJC	PFVC-1		TOJ	TOFM		TOBL	TFJ	TFVI	TTCJ	TTCVI	TRCAO	TRCFO	TH2OI	PH2O-OUT
PARAMETER	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
.971289	656.327	676.406	1251.69	1247.47	-263.27	-274.09	-259.80	65.3104	67.2238	65.5799	51.3599	106.370	49.3920	63.8143	94.6561
.994889	656.327	676.406	1252.53	1247.90	-263.55	-274.16	-259.80	65.8215	67.2526	65.5226	51.3599	112.542	49.7971	63.7159	94.6561
1.022489	655.696	676.827	1249.80	1248.11	-263.82	-274.29	-259.80	65.8215	67.2526	65.5226	51.1011	115.744	50.5201	63.8143	94.2411
1.059529	656.327	676.406	1253.37	1247.90	-264.29	-274.29	-259.80	66.0485	67.5115	65.6372	51.0435	118.514	50.7515	63.9269	94.4782
1.085129	655.696	676.827	1252.53	1248.11	-264.50	-274.29	-259.39	66.1622	67.2526	65.5799	50.8709	120.303	51.3581	63.4767	98.0357
1.121743	655.696	676.827	1252.53	1247.90	-265.38	-274.29	-259.80	66.1622	67.2238	65.5226	50.6406	121.512	51.6757	63.4767	95.6641
1.147343	655.696	676.827	1252.53	1247.90	-265.59	-274.55	-261.02	66.2189	67.2238	65.6372	50.4679	122.823	52.1375	63.7440	94.6561
1.172943	655.696	676.827	1253.37	1247.90	-265.72	-274.29	-259.80	66.1622	67.1663	65.5799	50.4679	123.557	52.3393	63.4767	96.4941
1.209505	656.327	676.406	1253.37	1248.74	-266.41	-274.68	-260.47	66.2189	67.1663	65.6945	50.4679	124.343	52.5700	63.8003	95.9012
1.235105	656.327	676.827	1253.37	1249.16	-267.09	-274.68	-260.47	66.2189	67.1663	65.6945	50.1799	124.997	53.0889	63.8143	96.3756
1.271665	656.327	676.827	1253.37	1248.11	-267.64	-274.68	-259.66	66.5026	67.1663	65.6945	49.9494	125.415	53.2041	63.7159	95.6641
1.297265	656.327	676.827	1253.37	1248.11	-267.64	-274.81	-259.12	66.2189	67.1663	65.7231	49.7189	125.755	53.2905	63.7159	94.5968
1.334318	656.327	676.827	1252.53	1248.11	-268.73	-274.81	-258.85	66.2189	67.1663	65.6945	49.6613	126.173	53.3770	63.7159	96.1384
1.359918	656.327	676.827	1249.80	1249.58	-268.73	-275.14	-260.47	66.5026	67.0513	65.8663	49.7189	126.487	53.7225	63.7722	96.4941
1.385518	656.327	676.827	1252.53	1249.16	-269.01	-274.81	-260.47	66.5026	67.0513	65.9236	49.4883	126.591	53.8952	64.0816	96.4941
1.422112	656.327	676.827	1249.80	1249.58	-269.76	-275.21	-260.47	66.5026	67.0513	65.9236	49.3729	127.087	53.9528	63.8143	96.3756
1.447712	656.327	677.038	1253.37	1249.16	-269.97	-275.21	-259.39	66.2189	67.0513	65.8663	49.2576	127.478	53.9528	63.7159	96.3756
1.484277	656.327	677.670	1253.37	1249.16	-275.05	-275.21	-260.47	66.2189	66.9362	65.9522	49.0558	127.061	54.1830	63.7440	96.3756
1.509877	656.327	676.827	1253.37	1249.58	-270.10	-275.21	-259.80	66.2189	66.8211	65.9522	49.0268	127.687	54.3557	63.7159	95.4269
1.535477	656.327	676.827	1253.37	1249.58	-270.38	-275.34	-260.47	66.2189	66.8211	66.0381	49.0268	128.052	54.4131	63.8003	94.6561
1.572052	656.327	676.827	1253.37	1249.58	-269.76	-275.34	-260.47	66.2189	66.7061	66.0954	48.9116	128.260	54.4131	63.7722	96.1384
1.597652	656.643	678.513	1251.69	1249.16	-270.38	-275.60	-261.02	66.1622	66.7061	66.1527	48.8249	128.313	54.4420	63.8003	96.3756
1.634669	656.327	677.670	1253.37	1249.58	-270.38	-275.34	-259.80	66.1622	66.5910	66.1527	48.7961	128.313	54.9308	63.7440	96.1384
1.660269	656.327	677.670	1254.21	1249.58	-270.52	-275.60	-261.02	66.1622	66.5910	66.1813	48.7961	128.677	54.9308	63.4626	95.6641
1.696857	656.327	678.091	1252.53	1249.16	-270.79	-275.60	-259.66	66.1622	66.5910	66.2672	48.7961	128.730	54.9308	63.7159	95.6641
1.722457	656.327	677.670	1255.06	1249.58	-270.65	-275.60	-260.75	66.1622	66.7061	66.3816	48.6229	128.573	54.9308	63.0120	94.5968
1.748057	656.327	677.249	1253.37	1249.58	-270.79	-275.73	-261.56	66.1622	66.5910	66.3816	48.6229	128.938	54.9308	63.8003	94.6561
1.842542	656.643	678.513	1251.69	1249.16	-271.48	-276.19	-261.83	66.5026	67.2526	66.6105	48.2766	129.172	55.1320	63.5751	94.6561
1.932962	656.327	677.670	1254.21	1249.58	-270.79	-276.25	-262.03	66.2189	66.5910	66.7249	47.9011	129.511	55.2758	63.5471	96.1384
2.031929	656.327	678.091	1253.37	1249.58	-272.17	-276.25	-263.19	65.8215	65.8998	66.8679	47.6411	130.135	55.3619	63.7159	97.0871
2.122707	656.643	678.513	1251.69	1249.16	-271.96	-276.38	-263.73	65.5944	65.4100	67.0681	47.5255	130.187	55.7354	63.3640	96.1384
2.212638	658.222	678.513	1253.37	1249.58	-271.96	-276.65	-264.14	65.3104	65.4100	67.3539	47.2075	130.759	55.9651	63.7159	96.1384
2.313682	656.327	677.670	1255.06	1250.01	-272.30	-276.65	-265.37	65.2536	65.3813	67.5255	47.1786	130.343	55.9077	63.9269	94.6561
2.403580	658.222	678.724	1254.21	1250.01	-273.06	-276.91	-265.91	65.2536	65.3236	67.7540	46.8893	130.239	56.0225	63.7159	96.1384
2.505505	656.643	678.724	1255.06	1250.01	-272.58	-276.91	-266.39	65.1400	65.2082	67.9255	46.7737	130.421	56.1947	63.7159	96.1384
2.595417	658.222	678.513	1253.37	1250.43	-273.06	-277.23	-266.32	64.9127	65.2082	68.2110	46.7737	130.421	56.1947	63.7159	95.6641
2.692472	658.222	678.724	1254.21	1250.43	-273.13	-277.30	-268.51	64.9127	64.9775	68.3823	46.8314	130.395	56.4816	63.4344	97.0871
2.785725	658.222	679.777	1253.37	1250.43	-273.27	-277.43	-269.20	64.6854	64.7468	68.4394	46.7737	130.421	56.4816	63.8003	96.1384
2.875611	656.327	678.513	1252.53	1249.58	-273.41	-277.43	-269.75	64.4011	64.7468	68.6677	46.5133	130.551	56.5964	63.5751	95.4269
2.975542	658.222	678.724	1255.06	1250.43	-273.27	-277.69	-270.30	64.3442	64.4006	68.6963	46.2817	130.707	56.4816	63.5751	96.1384
3.065432	658.222	678.724	1255.06	1250.01	-273.41	-277.69	-270.02	64.2304	64.2851	69.0101	46.2817	130.707	56.5964	63.2514	96.1384
3.167372	658.222	679.777	1253.37	1250.01	-275.05	-277.95	-271.40	64.0028	64.0542	69.1812	46.2817	128.339	56.4816	63.4767	97.0871
3.257313	658.222	680.198	1254.21	1250.85	-273.68	-277.95	-271.40	63.8891	63.5633	69.1812	46.2527	130.759	56.9406	63.7440	95.6641
3.347222	658.222	678.724	1255.06	1250.85	-273.27	-278.25	-272.91	63.4907	63.5344	69.3523	46.1948	128.886	56.8259	63.7159	96.1384
3.445587	658.222	679.777	1255.06	1250.85	-273.41	-278.28	-273.61	63.4336	63.4766	69.4094	46.1369	131.435	56.7685	63.7159	95.6641
3.535482	658.222	680.198	1253.37	1250.43	-273.41	-278.35	-274.71	63.3198	63.3611	69.5803	46.1948	130.811	56.8832	63.3500	94.5968
3.635995	658.222	680.198	1255.06	1250.85	-273.13	-278.35	-275.18	63.0920	63.1298	69.7514	45.9053	130.655	56.9406	63.4344	94.6561
3.725810	658.222	680.198	1255.06	1250.85	-273.68	-278.35	-275.81	63.0920	62.8985	69.8085	46.0211	130.759	57.0553	63.1246	94.5968
3.822510	658.222	680.198	1255.06	1250.85	-273.41	-278.35	-276.37	62.8641	62.5515	69.9224	46.0211	130.837	56.9406	63.5892	95.6641

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	PFJC	PFVCD	PFVC-1	PFVC-2	TOJ	TOFM	TO3L	TFJ	TFVI	TTCJ	TTCVI	TRCAO	TRCFU	TH2OI	PH2O-OUT
UNITS	PSIA	PSIA	PSIA	PSIA	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	PSIA
NEFF/ADC	26/ 72	27/ 73	24/ 64	25/ 65	81/217	10/ 28	80/216	62/168	60/160	63/169	59/157	82/220	61/161	83/221	32/ 88
3.915615	659.486	681.041	1255.06	1250.85	-273.68	-278.48	-276.65	62.5222	62.5515	70.0364	46.0211	130.967	57.0553	63.1246	97.3242
4.005575	658.222	680.198	1255.06	1250.85	-273.55	-278.48	-277.21	62.4081	62.2043	70.0364	45.9631	129.094	57.1986	63.4063	95.6641
4.105514	658.222	680.198	1255.06	1251.27	-272.58	-278.48	-277.36	62.1801	62.0885	70.2643	46.0211	131.019	57.1125	63.5751	95.4269
4.195399	658.854	679.777	1255.06	1250.85	-273.68	-278.48	-278.06	62.0660	61.6833	70.0649	45.8184	131.019	57.1700	63.7159	96.1384
4.297234	658.854	679.777	1255.06	1251.27	-273.62	-278.74	-278.34	61.6666	61.6253	70.2643	46.0211	130.811	57.1700	63.3640	95.6641
4.387129	658.854	680.198	1255.06	1251.27	-273.27	-278.74	-278.34	61.6096	61.5095	70.3782	46.0211	131.071	57.3993	63.1246	97.0871
4.476634	659.486	681.463	1255.06	1250.85	-273.27	-278.74	-278.91	61.4954	61.2777	70.4351	46.0211	131.175	57.3993	63.4626	96.1384
4.575965	658.854	680.198	1255.06	1251.27	-273.68	-278.74	-279.19	61.2672	61.0459	70.5205	45.9631	131.669	57.1986	63.7159	94.4782
4.666343	659.486	681.884	1255.06	1251.27	-277.57	-279.00	-279.48	61.2672	60.6981	70.6628	45.9053	131.643	57.1700	63.5751	95.9012

END FILE

390

## TRANSPARATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	PRCAO	PGH20T		WH20C-2		WH20P-2		TW-A4		TW-A6		TW-B5		TW-C1	
PARAMETER		PH20-J		WH20C-1		WH20P-1		TW-A3		TW-A5		TW-B4		TW-B6	
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205	78/208	79/209	64/172	65/173	66/176	67/177	68/184
-1.180408	887.285	1101.37	1203.74	10.8227	10.6990	1.33013	13.4472	64.7218	63.6746	88888.0	61.4575	62.0357	62.5322	67.4675	63.7846
-1.089592	884.574	1097.59	1203.74	10.8446	10.6796	1.33353	13.4117	64.7218	64.7978	88888.0	61.4575	61.0515	61.4072	67.0469	64.9084
-0.999687	889.997	1103.46	1203.74	10.8774	10.6934	1.32560	13.4304	64.4412	63.6746	88888.0	61.4575	61.7545	61.4072	67.0469	63.7846
-0.897214	890.635	1104.72	1203.74	10.8774	10.7267	1.33070	13.4453	64.7218	64.7978	88888.0	61.4575	62.0357	61.4072	66.9066	63.7846
-0.807355	888.083	1101.79	1203.74	10.8337	10.7100	1.31766	13.4323	64.4412	63.6746	88888.0	61.4575	62.0357	62.5322	67.7479	64.9084
-0.708257	889.997	1103.46	1203.74	10.8528	10.6934	1.33013	13.4453	64.5815	63.6746	88888.0	61.4575	62.0357	62.5322	67.4675	64.9084
-0.617460	887.285	1103.67	1203.74	10.8528	10.7017	1.32560	13.4603	65.8441	64.7978	88888.0	61.4575	62.0357	62.5322	68.0283	64.9084
-0.527029	884.733	1101.79	1203.74	10.8446	10.6934	1.33807	13.4453	65.0025	64.7978	88888.0	61.4575	62.0357	61.4072	66.9066	64.9084
-0.425750	886.807	1103.46	1203.74	10.8665	10.6934	1.32560	13.4472	64.4412	64.7978	88888.0	61.4575	62.5979	61.4072	66.9066	64.9084
-0.335848	884.574	1099.27	1203.74	10.8118	10.6934	1.33353	13.4229	64.4412	64.7978	88888.0	61.4575	62.0357	62.5322	68.0283	64.9084
-0.235432	883.298	1102.62	1204.36	10.8501	10.6934	1.32900	13.4453	64.7218	63.6746	88888.0	61.4575	62.0357	62.5322	68.1684	64.9084
-0.178851	883.298	1100.32	1203.74	10.8528	10.6990	1.32900	13.4304	64.7218	63.6746	88888.0	61.4575	62.0357	61.4072	67.0469	64.9084
-0.153251	882.979	1100.11	1204.36	10.8446	10.6934	1.33353	13.4267	65.0025	64.7978	88888.0	61.4575	62.0357	62.5322	68.0283	64.9084
-0.116277	887.126	1103.46	1203.74	10.8227	10.6962	1.34005	13.4304	65.8441	64.7978	88888.0	61.4575	62.0357	62.5322	68.0283	64.9084
-0.090677	890.635	1106.40	1203.74	10.8337	10.6934	1.33467	13.4453	65.2831	64.7978	88888.0	62.5831	61.0515	61.4072	67.7479	64.9084
-0.065077	888.083	1103.46	1204.36	10.8501	10.6934	1.33240	13.4472	65.8441	64.7978	88888.0	62.0204	62.0357	61.9698	67.4675	64.9084
-0.028466	887.126	1103.46	1203.74	10.8227	10.6879	1.33240	13.4453	65.8441	64.7978	88888.0	61.4575	62.0357	62.5322	67.7479	64.9084
-0.002866	884.733	1103.04	1204.36	10.8227	10.6879	1.32616	13.4323	65.0025	64.7978	88888.0	62.0204	62.0357	61.9698	67.4675	64.9084
0.033663	885.850	1100.32	1204.36	10.8337	10.6934	1.32106	13.4453	65.0025	64.7978	88888.0	61.4575	62.0357	62.5322	68.0283	64.9084
0.059263	885.850	1102.00	1204.36	10.8063	10.6768	1.32900	13.4790	65.8441	64.7978	88888.0	62.0204	62.3169	61.4072	68.0283	64.9084
0.084863	883.936	1101.79	1204.36	10.8009	10.6740	1.32786	13.4453	65.8441	63.6746	88888.0	62.0204	62.0357	61.9698	67.4675	64.9084
0.121392	888.083	1104.72	1204.36	10.8282	10.6796	1.33523	13.4304	64.1605	63.6746	88888.0	61.4575	62.0357	127.805	67.4675	64.9084
0.146992	885.531	1101.79	1204.36	10.8446	10.6934	1.33070	13.4304	64.4412	64.7978	88888.0	61.4575	61.7545	119.624	66.6261	64.3466
0.184041	883.298	1100.11	1204.36	10.8227	10.6796	1.33353	13.4267	63.4586	62.5508	88888.0	60.1906	61.7545	111.960	66.0650	63.5036
0.209641	884.574	1103.46	1204.36	10.8528	10.6934	1.33353	13.4154	63.4586	60.8640	88888.0	60.1906	61.7545	109.216	66.6261	64.9084
0.246212	885.531	1103.67	1204.36	10.8774	10.6934	1.32786	13.4173	63.3182	63.6746	88888.0	60.1906	61.0515	105.919	66.6261	64.9084
0.271812	887.285	1102.62	1204.36	10.8528	10.6962	1.32163	13.4379	62.1946	60.8640	88888.0	60.0498	60.9109	103.167	64.6616	63.2226
0.297412	885.850	1101.37	1204.36	10.8227	10.6823	1.32446	13.4453	60.5082	46.7610	88888.0	59.2047	59.7854	103.442	62.4141	61.5354
0.333996	882.181	1099.27	1204.36	10.8227	10.6768	1.33353	13.4472	59.6645	62.5508	88888.0	58.0775	58.6595	103.442	61.4301	61.5354
0.359596	885.850	1103.46	1204.36	10.8446	10.6796	1.33807	13.4453	58.9612	59.1760	88888.0	58.0775	58.6595	103.442	62.1350	62.0979
0.396214	884.255	1100.32	1204.36	10.8528	10.6934	1.33693	13.4416	58.9612	60.3015	88888.0	58.0775	58.6595	103.167	61.9925	61.5354
0.421814	888.083	1101.79	1204.36	10.8719	10.6796	1.33467	13.4603	58.8205	62.5508	88888.0	57.5136	58.3778	100.963	61.2896	61.5354
0.447414	889.997	1104.72	1204.36	10.8501	10.6823	1.33240	13.4453	58.9612	60.3015	88888.0	57.5136	58.6595	101.514	61.4301	61.5354
0.484436	887.764	1101.37	1204.36	10.8501	10.6934	1.32786	13.4453	58.8205	60.3015	88888.0	57.5136	58.6595	100.963	61.4301	61.5354
0.510036	886.807	1101.79	1204.36	10.8337	10.6990	1.32786	13.4472	58.9612	59.1760	88888.0	57.5136	58.8002	100.411	61.4301	62.0979
0.546593	887.126	1103.04	1204.36	10.8446	10.7017	1.32560	13.4453	92.8671	109.209	88888.0	98.8240	66.5294	91.5653	78.0952	67.1541
0.572193	889.997	1103.46	1204.36	10.8227	10.6990	1.32106	13.4603	183.720	262.093	88888.0	219.828	78.9759	76.5441	108.121	76.9501
0.608774	890.954	1101.37	1204.36	10.8446	10.6934	1.32560	13.4472	242.128	306.034	88888.0	328.617	85.5170	67.8680	125.622	87.2528
0.634374	887.285	1098.64	1204.36	10.8501	10.7017	1.32616	13.4453	273.181	359.014	88888.0	346.679	112.008	40.5018	185.066	132.280
0.659974	884.733	1098.64	1204.36	10.8446	10.7073	1.32786	13.4472	644.561	594.221	88888.0	419.442	306.695	-113.65	726.395	489.756
0.696550	885.850	1100.32	1204.36	10.8719	10.7128	1.32900	13.4323	983.979	941.588	88888.0	640.218	461.399	-269.42	1042.32	846.987
0.722150	886.807	1100.11	1204.36	10.8829	10.7322	1.33070	13.4173	977.643	1020.16	88888.0	731.434	493.414	-335.07	1088.79	974.898
0.759180	886.807	1101.79	1204.36	10.8965	10.7572	1.33240	13.4080	967.083	1013.30	88888.0	773.552	509.350	-398.55	1142.22	1033.42
0.784780	884.574	1099.48	1204.36	10.9157	10.7585	1.33098	13.4304	988.467	1048.13	88888.0	798.539	520.314	88888.0	1178.40	1062.99
0.810380	885.850	1101.79	1204.36	10.9403	10.7738	1.32616	13.4416	1019.76	1083.51	88888.0	821.758	531.805	88888.0	1208.02	1086.24
0.846926	882.022	1098.43	1204.36	10.9375	10.7821	1.32900	13.4472	1039.01	1063.97	88888.0	846.797	542.183	88888.0	1235.70	1104.75
0.872526	882.979	1098.01	1204.36	10.9211	10.7849	1.32786	13.4379	1062.49	1142.21	88888.0	864.002	549.273	88888.0	1258.37	1115.86
0.909149	885.850	1103.46	1204.36	10.8774	10.7821	1.32645	13.4323	1080.97	1129.51	88888.0	880.138	555.812	88888.0	1273.87	1121.68
0.934749	883.298	1099.27	1204.36	10.9211	10.7876	1.32900	13.4416	1090.74	1150.69	88888.0	889.393	560.984	88888.0	1284.97	1126.45

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	PRCAO	PGH2OT	WH2OC-2	WH2OP-2	TW-A4	TW-A6	TW-B5	TW-C1
PARAMETER	PH2O-J	WH2OC-1	WH2OP-1	TW-A3	TW-A5	TW-B4	TW-B6	
UNITS	PSIA	LB-W	LB-W	DEG F	DEG F	DEG F	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205
971289	889.997	1103.67	1204.36	10.9375	10.7821	1.33693	13.4472	1096.55
996889	887.285	1102.62	1204.36	10.9648	10.7876	1.33467	13.4472	1099.19
1.022489	886.488	1099.69	1204.36	10.9416	10.8015	1.32446	13.4379	1107.38
1.059529	885.850	1100.11	1204.36	10.9539	10.7987	1.32446	13.4416	1116.24
1.085129	889.997	1098.85	1204.36	10.9594	10.7987	1.32900	13.4379	1118.22
1.121743	885.850	1100.11	1204.36	10.9812	10.7959	1.33070	13.4267	1123.24
1.147343	886.488	1100.32	1204.36	10.9648	10.7987	1.33070	13.4229	1127.21
1.172943	889.997	1102.62	1204.36	10.9703	10.8098	1.33070	13.4173	1134.22
1.209505	891.592	1103.04	1204.36	10.9403	10.8126	1.33013	13.4416	1144.67
1.235105	888.083	1102.00	1204.36	10.9211	10.8098	1.32786	13.4453	1152.62
1.271665	887.126	1103.46	1204.36	10.8965	10.8015	1.32900	13.4453	1153.15
1.297265	886.488	1102.21	1204.36	10.9157	10.8015	1.32616	13.4416	1155.53
1.334318	891.911	1102.62	1204.36	10.9321	10.8098	1.33467	13.4566	1155.53
1.359918	891.911	1101.79	1204.36	10.9403	10.8029	1.34204	13.4566	1153.15
1.385518	884.733	1098.64	1204.36	10.9403	10.7959	1.33467	13.4453	1155.53
1.422112	886.488	1100.32	1204.36	10.9266	10.7876	1.33070	13.4304	1156.06
1.447712	886.488	1101.79	1204.36	10.9102	10.7821	1.33240	13.4304	1161.62
1.484277	886.807	1101.37	1204.36	10.9321	10.7876	1.33098	13.4304	1166.92
1.509877	888.083	1102.83	1204.36	10.9403	10.7959	1.33552	13.4304	1161.62
1.535477	887.126	1102.00	1204.36	10.9375	10.7904	1.33523	13.4304	1165.33
1.572052	886.488	1101.79	1204.36	10.9211	10.7904	1.33467	13.4053	1169.04
1.597652	888.402	1101.79	1204.36	10.9157	10.7849	1.32616	13.4267	1170.90
1.634669	889.997	1100.11	1204.36	10.9211	10.7821	1.32560	13.4267	1174.08
1.660269	889.997	1100.32	1204.36	10.9266	10.7821	1.32163	13.4154	1172.49
1.696857	888.083	1101.37	1204.36	10.9211	10.7821	1.32616	13.4267	1168.78
1.722457	886.488	1099.27	1204.36	10.8938	10.7655	1.32616	13.4453	1164.54
1.748057	884.255	1097.17	1204.36	10.8883	10.7655	1.32191	13.4566	1166.00
1.842542	884.255	1099.27	1204.36	10.9266	10.7572	1.32560	13.4304	1168.12
1.932962	884.574	1101.37	1204.36	10.9403	10.7821	1.33070	13.4304	1171.70
2.031929	886.807	1102.00	1204.36	10.9416	10.8029	1.33240	13.4528	1166.92
2.122707	885.531	1101.79	1203.74	10.9416	10.7959	1.33693	13.4453	1178.72
2.212638	884.733	1097.17	1203.74	10.9102	10.7821	1.33098	13.4173	1173.29
2.313682	886.807	1101.79	1204.36	10.9648	10.7821	1.33297	13.4790	1176.60
2.403580	886.488	1099.27	1204.36	10.9157	10.7932	1.32389	13.4453	1178.72
2.505505	889.997	1101.79	1204.36	10.9375	10.7932	1.33467	13.4453	1178.59
2.595417	885.531	1100.11	1203.74	10.9321	10.7987	1.32163	13.4323	1178.59
2.692472	883.298	1099.27	1203.74	10.9321	10.7821	1.32446	13.4416	1172.49
2.785725	886.488	1100.95	1203.74	10.9416	10.7821	1.33240	13.4416	1170.10
2.875611	883.936	1098.43	1203.74	10.9321	10.7876	1.33467	13.4267	1172.49
2.975542	885.850	1100.32	1203.74	10.9321	10.7765	1.32843	13.4379	1167.98
3.065432	882.022	1097.17	1203.74	10.9375	10.7738	1.32900	13.4323	1133.03
3.167372	884.574	1098.43	1203.74	10.9375	10.7682	1.32446	13.4379	1125.36
3.257313	885.850	1099.27	1203.74	10.9321	10.7821	1.32616	13.4472	1133.30
3.347222	887.126	1101.79	1203.74	10.9321	10.7876	1.32786	13.4453	1132.77
3.445587	884.574	1099.69	1203.74	10.9321	10.8015	1.32645	13.4267	1119.28
3.535482	885.531	1100.32	1203.74	10.9321	10.7821	1.32560	13.4453	1133.03
3.635995	880.427	1095.07	1203.74	10.9375	10.7821	1.32333	13.4453	1125.76
3.725810	884.255	1100.11	1204.36	10.9321	10.7655	1.33353	13.4304	1125.76
3.822510	885.531	1099.27	1203.74	10.9403	10.7932	1.32616	13.4453	1138.59

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME '1R704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	PRCAO	PGH20T	WH20C-2	WH20P-2	TW-A4	TW-A6	TW-B5	TW-C1
PARAMETER	PH20-J	WH20C-1	WH20P-1	TW-A3	TW-A5	TW-B4	TW-B6	
UNITS	PSIA	PSIA	PSIA	LB-W	LB-W	LB-W	DEG F	DEG F
NEFF/ADC	29/ 77	31/ 81	28/ 76	8/ 24	9/ 25	6/ 16	7/ 17	77/205
3.915615	889.997	1101.79	1203.74	10.9403	10.7987	1.33098	13.4304	1133.03
4.005575	888.402	1101.79	1204.36	10.9416	10.8126	1.33467	13.4173	1133.03
4.105514	885.531	1098.01	1203.74	10.9102	10.7959	1.33013	13.4379	1130.65
4.195399	883.936	1098.64	1203.74	10.9157	10.7821	1.33523	13.4304	1125.76
4.297234	887.126	1103.04	1203.74	10.9403	10.7765	1.32616	13.4453	1127.74
4.387129	888.083	1100.32	1203.74	10.9321	10.7876	1.34147	13.4453	1133.82
4.476634	885.531	1099.27	1204.36	10.9102	10.7655	1.33070	13.4005	1123.51
4.575965	887.126	1102.00	1203.74	10.9102	10.7710	1.32786	13.4323	1133.82
4.666343	884.574	1100.32	1203.74	10.9375	10.7904	1.32900	13.4472	1133.03

END FILE

393

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KR6-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	TW-C4	TW-C5	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B	FCALA 31941A
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	177/45	187/48
-1.180408	62.4137	63.8673	71.4196	62.5536	63.0007	63.1139	62.9550	.756146	.000000
-1.089592	62.1326	63.8673	71.4196	63.6776	63.0007	63.1139	63.2359	.334111	.000000
-.999687	61.2892	63.8673	71.4196	63.6776	63.0007	63.1139	62.9550	.334111	.000000
-.897214	62.4137	63.8673	71.4196	63.6776	63.0007	63.1139	63.5166	.334111	.845547
-.807355	62.4137	63.8673	71.4196	63.6776	63.0007	63.1139	63.2359	.334111	.845547
-.708257	62.4137	63.8673	71.4196	63.6776	62.7196	63.1139	63.2359	.334111	.000000
-.617460	61.2892	63.8673	71.5596	62.5536	63.0007	63.1139	62.9550	.334111	.845547
-.527029	63.2568	63.8673	71.4196	63.6776	63.0007	63.1139	62.9550	.334111	.000000
-.425750	63.5377	63.8673	71.4196	63.6776	63.0007	63.1139	62.9550	.334111	.845547
-.335848	61.2892	63.8673	71.5596	62.5536	63.0007	63.1139	63.2359	.756146	.000000
-.235432	61.2892	64.9956	71.4196	63.6776	63.0007	63.1139	63.2359	.756146	.845547
-.178851	62.9758	63.8673	71.5596	63.6776	63.0007	63.1139	62.9550	.334111	.845547
-.153251	61.4297	63.8673	71.4196	63.6776	63.0007	63.1139	62.6742	-.08792	.845547
-.116277	61.4297	63.8673	71.5596	63.6776	63.1412	63.1139	62.9550	.334111	.845547
-.090677	61.4297	64.9956	71.4196	63.6776	63.0007	63.1139	63.2359	-.08792	.845547
-.065077	62.9758	63.8673	71.4196	63.6776	63.0007	63.1139	62.9550	.334111	.845547
-.028466	63.2568	63.8673	71.4196	63.6776	63.0007	63.6757	62.3934	.334111	.845547
-.002866	62.4137	63.8673	71.4196	63.6776	63.0007	63.1139	63.5166	-.08792	.845547
.033663	62.1326	63.8673	71.4196	63.6776	63.0007	63.1139	63.2359	.334111	.845547
.059263	61.4297	63.8673	71.5596	63.6776	63.0007	63.1139	63.5166	-.50996	.845547
.084863	62.9758	63.8673	71.4196	64.2393	63.0007	63.1139	63.6570	.334111	.845547
.121392	62.4137	62.7384	71.5596	65.9236	63.5627	63.1139	62.9550	-.08792	.845547
.146992	61.4297	63.8673	71.4196	64.5201	64.1246	63.1139	62.9550	.334111	.845547
.184041	61.4297	63.8673	71.4196	64.2393	63.0007	63.1139	62.9550	-.50996	.845547
.209641	60.7267	63.8673	71.1397	64.2393	64.1246	63.6757	62.9550	.756146	.845547
.246212	60.1640	63.8673	70.4396	64.2393	64.1246	63.1139	63.5166	.334111	.845547
.271812	59.0383	61.0439	68.1976	63.6776	63.8437	63.1139	63.2359	.756146	.845547
.297412	54.5301	59.3482	66.9354	62.5536	63.1412	63.1139	63.2359	-.50996	.845547
.333996	52.8373	58.2170	66.0935	62.5536	62.4385	63.1139	62.9550	.756146	.845547
.359596	52.4139	58.2170	66.0935	62.5536	62.4385	63.1139	62.9550	-.50996	.845547
.396214	52.4139	58.2170	66.0935	62.5536	62.4385	63.1139	62.3934	-.08792	.845547
.421814	54.2480	58.2170	66.0935	60.0227	61.8761	62.5519	62.1124	.334111	.845547
.447414	54.5301	58.2170	66.0935	61.4291	61.5949	61.9897	62.1124	.334111	.845547
.484436	54.5301	58.2170	66.0935	62.5536	62.0167	61.9897	62.1124	.756146	.845547
.510036	53.4017	59.3482	66.0935	62.5536	62.4385	61.9897	62.1124	-.08792	.845547
.546593	69.9892	72.8767	75.0558	77.9541	70.8558	77.3936	69.6839	-.08792	.845547
.572193	80.0460	83.8022	91.4731	142.993	117.062	138.654	116.422	-.08792	.845547
.608774	83.9430	92.4422	103.763	191.258	169.627	184.513	171.103	.334111	.845547
.634374	123.032	177.128	209.970	228.350	195.496	207.986	203.290	-.93199	.845547
.659974	442.879	594.643	881.634	350.031	293.289	353.393	276.535	-.08792	.845547
.696550	786.023	793.766	1274.55	440.509	394.563	482.832	414.763	.334111	.845547
.722150	898.248	824.659	1316.36	449.117	420.437	509.779	487.384	.334111	.845547
.759180	965.987	858.682	1340.84	453.832	428.803	519.098	516.758	-.08792	.845547
.784780	1010.11	888.945	1372.54	460.758	433.259	522.931	521.958	-.08792	.845547
.810380	1035.57	905.395	1388.10	464.079	437.155	525.120	530.706	.756146	.845547
.846926	1061.57	911.762	1405.18	464.079	438.824	526.761	535.894	.756146	.845547
.872526	1083.10	922.903	1428.82	462.419	439.937	528.129	538.350	.334111	.845547
.909149	1097.76	937.227	1432.64	464.079	440.215	530.589	539.714	.334111	.845547
.934749	1107.41	944.124	1436.18	466.292	441.049	530.589	540.668	-.50996	.845547

## TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	Tw-C4	Tw-C5	Tw-C6	Tw-D1	Tw-D2	Tw-D3	Tw-D4	FCALB 31941B	FCALB 31941A
PARAMETER									
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LRS	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201	17/ 45	18/ 48
.971289	1120.10	956.858	1440.54	467.121	442.577	532.502	542.986	-.50996	.845547
.996889	1130.82	964.817	1440.27	467.121	443.272	532.229	539.168	.334111	.845547
1.022489	1133.73	968.001	1437.68	469.609	442.438	531.136	538.350	.756146	.845547
1.059529	1144.85	971.715	1444.22	471.543	443.550	531.683	543.940	.756146	.845547
1.085129	1150.68	973.838	1445.17	470.714	444.383	530.589	542.986	.334111	.845547
1.121743	1154.92	975.960	1448.72	470.714	444.661	530.589	543.804	.334111	.845547
1.147343	1159.16	979.675	1449.54	471.543	446.050	531.683	543.259	-.08792	.845547
1.172943	1166.32	982.593	1450.77	474.029	446.050	531.683	537.395	-.08792	.845547
1.209505	1177.19	990.818	1457.46	474.029	444.661	530.043	529.750	.334111	.845547
1.235105	1184.62	990.818	1461.69	470.714	446.050	529.496	535.075	.334111	.845547
1.271665	1191.13	989.226	1464.84	471.267	446.050	530.589	540.532	.334111	.845547
1.297265	1193.65	995.328	1472.50	470.714	446.050	531.683	542.986	.756146	.845547
1.334318	1194.31	993.471	1470.04	469.056	446.050	531.136	543.531	.334111	.845547
1.359918	1194.31	997.185	1466.21	470.162	446.605	530.589	538.486	.334111	.845547
1.385518	1198.70	999.572	1472.50	470.714	444.661	530.043	538.486	.334111	.845547
1.422112	1200.29	999.307	1463.47	470.714	443.689	532.229	540.532	.334111	.845547
1.447712	1200.69	1002.92	1470.31	472.924	444.661	531.683	539.986	.756146	.845547
1.484277	1207.20	1007.95	1474.96	474.029	446.050	532.229	539.441	.334111	.845547
1.509877	1204.94	1013.52	1463.88	475.962	446.050	531.683	539.441	.334111	.845547
1.535477	1208.00	1010.34	1471.41	472.924	446.050	532.229	534.802	.756146	.845547
1.572052	1210.93	1013.52	1474.96	473.477	443.689	533.869	537.258	.756146	.845547
1.597652	1211.19	1009.81	1476.88	475.134	446.050	534.415	540.259	.756146	.845547
1.634669	1213.32	1013.52	1482.36	471.543	446.050	532.502	542.986	.756146	.845547
1.660269	1211.32	1013.52	1486.75	473.477	446.050	531.683	543.259	.334111	.845547
1.696857	1211.72	1016.17	1485.38	471.543	446.327	531.683	540.532	.334111	.845547
1.722457	1212.79	1018.29	1483.73	475.134	446.605	532.229	540.668	.334111	.845547
1.748057	1213.32	1016.17	1478.53	478.445	446.883	533.869	540.668	.756146	.845547
1.842542	1217.71	1022.00	1484.28	475.686	446.050	532.502	540.532	.334111	.845547
1.932962	1216.64	1024.91	1470.31	476.100	446.327	532.229	543.531	.334111	.845547
2.031929	1216.25	1024.91	1477.98	478.997	447.438	530.589	539.986	.334111	.845547
2.122707	1225.03	1015.64	1493.33	477.893	446.050	535.507	541.623	.334111	.845547
2.212638	1223.03	1018.82	1503.22	479.549	449.104	537.009	538.350	.756146	.845547
2.313682	1221.30	1018.82	1488.67	477.893	447.993	535.507	543.804	.334111	.845547
2.403580	1217.71	1024.12	1497.87	480.101	447.438	536.873	543.804	.334111	.845547
2.505505	1220.50	1024.65	1484.01	480.376	448.132	536.600	542.986	-.08792	.845547
2.595417	1209.06	1024.91	1483.73	479.549	448.132	536.600	539.441	.334111	.845547
2.692472	1193.25	1032.60	1494.43	483.961	449.936	537.009	543.940	.967163	.845547
2.785725	1195.38	1026.24	1504.32	480.101	448.132	536.873	544.622	.756146	.845547
2.875611	1198.96	1032.60	1491.14	480.101	447.993	536.054	538.486	.756146	.845547
2.975542	1196.44	1028.36	1488.94	480.101	447.993	536.600	538.350	.334111	.845547
3.065432	1181.70	1030.48	1492.51	481.755	448.132	537.009	542.986	.334111	.845547
3.167372	1182.63	1028.36	1497.73	484.787	449.381	536.873	541.623	.334111	.845547
3.257313	1185.82	1032.60	1496.08	480.376	449.659	540.968	543.804	-.08792	.845547
3.347222	1175.07	1026.24	1493.06	480.376	448.132	538.784	542.986	-.93199	.845547
3.445587	1173.21	1028.89	1498.28	482.307	449.104	539.330	542.986	.334111	.845547
3.535482	1179.31	1020.41	1503.36	481.204	449.104	538.784	542.986	-.08792	.845547
3.635995	1177.99	1026.24	1492.79	479.549	449.659	540.422	545.984	.756146	.845547
3.725810	1176.13	1026.24	1502.95	482.858	449.242	537.009	543.259	-.08792	.845547
3.822510	1176.66	1031.54	1502.95	486.165	450.214	540.422	545.031	-.50996	.845547

TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2KB6-704-117 CALIBRATION PERFORMED 05-09-79 09:58:39 CAL DECK FILE NAME 'TR704A'

EDIT RATIO 5 FILE NO. 215 LU 15 FROM 129/ 0 TO 151/47 FILE STARTING T.O.D. 19:19:49.714471 T.C.V. ON T.O.D. 19:19:50.894879

PARAMETER	TW-C4	TW-C6	TW-D1	TW-D2	TW-D3	TW-D4	FCALB 31941B
PARAMETER	TW-C5	TW-D1	TW-D3	FCALA 31941A			
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	LBS
NEFF/ADC	69/185	70/188	71/189	72/192	73/193	74/200	75/201
3.915615	1177.99	1027.83	1504.32	481.755	450.352	540.422	545.031
4.005575	1173.21	1020.41	1506.66	484.787	451.046	540.968	542.986
4.105514	1168.70	1028.36	1519.46	488.369	450.352	539.330	543.259
4.195399	1165.25	1024.91	1511.75	488.369	451.046	539.330	543.259
4.297234	1166.58	1028.89	1516.16	482.858	449.659	540.422	545.031
4.387129	1165.25	1028.36	1516.57	482.307	450.214	540.422	546.529
4.476634	1165.52	1023.06	1513.13	484.512	450.352	541.240	546.802
4.575965	1164.72	1029.15	1510.10	482.307	450.214	540.968	541.623
4.666343	1166.05	1028.36	1515.33	483.961	451.323	543.150	543.259

END FILE

306



APPENDIX D  
THERMOCOUPLE CALIBRATION DATA



TRANSPIRATION/REGENERATIVE COOLED ROCKET CHAMBER TEST PROGRAM, LAB#704

TEST NUMBER T/R 2K86-704-202 CALIBRATION PERFORMED 07-20-79 11:30:29 CAL DECK FILE NAME 'TR704X'  
 EDIT RATIO 1 FILE NO. 617 LU 18 FROM 108/ 0 TO 113/47 FILE STARTING T.O.D. 12:13:55.836228 T.C.V. ON T.O.D. 12:13:55.836228

PARAMETER	TW-01	TW-A6	TW-B5	TW-C4	TW-C5	TW-B6	TW-C6	TW-03	TW-A3	TW-A4	T-INLET LINE		
PARAMETER	TW-B4	TW-B5	TW-C5	TW-C6	TW-03	TW-A3	TW-A4	TW-03	TW-A3	TW-A4	T-CHAMBER		
UNITS	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F	DEG F		
NEFF/ADC	64/172	65/173	66/176	67/177	68/184	69/185	70/188	71/189	72/192	73/193	74/200	75/201	76/204
4477.36031	310.300	318.875	320.484	316.121	317.457	317.266	325.018	325.186	308.725	319.855	318.278	364.099	367.239
4523.04107	310.159	318.875	320.766	315.839	317.738	317.407	325.230	325.327	309.006	320.981	318.771	365.083	368.363
4568.72693	310.441	319.051	320.766	316.297	318.019	317.971	325.230	325.538	309.006	320.418	318.841	365.996	369.207
4614.41648	310.441	319.685	320.766	317.424	317.457	317.266	325.230	325.609	309.006	319.221	318.841	366.769	370.190
4660.10005	310.581	319.685	320.484	317.600	318.581	318.429	325.512	326.385	309.287	320.031	319.405	368.244	372.017
4705.78692	311.145	321.482	323.162	318.022	319.706	319.485	327.485	327.513	310.411	323.305	321.236	372.949	377.074
4751.47075	312.553	322.010	324.782	318.621	321.112	320.436	328.613	328.782	311.395	325.136	322.362	375.265	379.741
4797.15375	313.117	323.349	324.994	319.854	321.816	321.352	329.600	330.087	312.097	325.488	323.489	377.230	381.566
4842.84062	313.821	324.230	326.403	320.276	322.237	322.056	330.657	330.334	312.659	327.002	324.053	378.352	383.249
4888.52190	314.244	324.829	327.249	320.417	323.363	323.183	331.150	332.061	313.222	327.741	324.898	379.895	384.091
4934.20881	314.948	325.358	327.108	322.530	323.644	323.360	331.432	331.815	313.784	327.002	324.898	380.456	384.792
4979.89639	315.371	325.957	327.108	323.904	324.488	324.170	332.560	332.590	314.346	326.614	325.180	381.718	386.335
5025.57991	316.216	327.895	327.390	324.785	325.191	324.733	333.124	333.366	315.330	327.741	326.307	382.945	388.578
5071.26963	317.343	327.895	329.785	325.137	326.738	327.059	334.252	334.706	316.033	329.643	328.279	385.644	391.101
5116.96423	318.330	329.622	330.208	328.167	328.496	327.517	336.366	336.328	316.877	329.079	328.702	388.586	395.023
5162.65426	319.457	332.124	334.577	327.991	330.114	329.736	339.185	338.937	318.283	334.502	331.661	393.487	400.622
5208.33251	321.007	334.062	335.000	332.042	332.083	331.498	340.806	341.193	319.830	333.445	333.069	397.405	405.097
5254.01721	322.699	336.916	337.537	334.297	334.193	332.942	342.709	343.978	321.658	336.368	335.746	401.251	409.848
5299.70147	323.967	338.361	339.087	335.213	335.459	335.444	344.964	345.634	323.205	338.551	337.296	403.557	411.803
5345.38922	325.518	339.594	342.469	335.178	337.569	337.381	346.655	347.115	324.471	342.388	339.268	406.351	413.897
5391.06678	327.210	341.427	341.624	339.229	337.991	338.649	347.782	349.124	325.878	340.910	340.395	407.992	416.270
5436.73970	328.620	342.871	345.287	338.313	339.960	339.988	349.755	350.674	327.003	345.275	342.438	410.191	417.944
5482.42990	329.606	344.633	345.569	341.378	341.085	340.939	351.022	351.308	328.128	344.008	342.649	411.308	419.896
5528.10179	328.901	349.247	350.711	345.886	346.147	346.187	357.923	358.881	327.847	349.533	347.719	425.906	440.212
5573.78124	331.439	345.901	346.978	343.632	342.491	343.687	351.727	352.330	330.661	346.014	344.903	403.697	410.128
5619.45401	319.598	323.455	325.980	320.875	321.394	321.669	327.767	326.490	319.127	328.058	324.475	323.640	316.828
5665.13594	307.061	309.050	311.329	307.674	308.462	308.959	313.956	312.392	306.477	312.007	310.253	305.737	299.180
5710.82174	300.730	303.948	306.965	301.941	304.249	304.456	310.435	308.940	300.019	307.295	305.469	313.647	310.493
5756.49846	297.575	301.170	301.619	301.484	301.582	301.186	307.479	306.652	297.151	301.460	302.095	317.130	314.998
5802.17891	295.748	300.045	301.619	299.560	300.319	299.895	306.353	304.751	295.469	300.828	300.408	320.965	319.645
5847.85872	293.080	294.186	296.637	293.205	295.208	294.661	299.820	297.478	292.947	297.606	296.272	311.959	313.167
5893.54512	283.415	283.190	284.164	283.368	285.138	284.190	286.628	284.572	284.001	285.485	285.482	294.229	283.402
5939.22741	276.715	276.144	277.742	277.090	279.562	278.118	279.641	277.666	277.871	279.622	279.617	284.642	264.151
5984.91167	271.009	272.003	272.730	272.497	275.111	273.696	274.623	273.302	272.868	274.470	274.602	276.833	249.531

END FILE



## DISTRIBUTION LIST CONTRACT NAS 3-21029

<u>Name</u>	<u>Copies</u>	<u>Name</u>	<u>Copies</u>
National Aeronautics & Space Administration Lewis Research Center 21000 Brookpark Road Cleveland, Ohio 44135		NASA Scientific & Technical Information Facility P.O. Box 8757 Baltimore-Washington International Airport Baltimore, MD 21240	
Attn: Contracting Officer, MS 500-306	1	Attn: Accessioning Dept.	25
E. A. Bourke, MS 501-5	5	Attn: Office of Ass't. Director (Chemical Technology)	1
Technical Utilization Office, MS 7-3	1		
Technical Report Control Office, MS 5-5	1		
AFSC Liaison Office, MS 501-3	2	Jet Propulsion Laboratory 4800 Oak Grove Drive Pasadena, CA 91103	
Library, MS 60-3	2		
Office of Reliability & Quality Assurance, MS 500-211	1	Attn: Library	1
Anthony Fortini, Project Manager, MS 501-7	18		
Patent Counsel, MS 500-318	1	Defense Documentation Center Cameron Station Building 5 5010 Duke Street Alexandria, VA 22314	
National Aeronautics & Space Administration Headquarters Washington, D.C. 20546		Attn: TISIA	1
Attn: Office of Aeronautics & Space Technology	1	Defense Advanced Research Projects Agency 1400 Wilson Blvd. Arlington, VA 22209	
Director, Space Propulsion & Power/RP	1		
Director, Study Analysis & Planning/RX	1	Attn: Library	1
F. W. Stephenson/RP	1		
Attn: Office of Space Flight		Aeronautical Systems Division Air Force Systems Command Wright-Patterson Air Force Base Dayton, OH 45433	
Director, Advanced Programs, MT	1	Attn: Library	1
Director, Advanced Development/MTG	1		
Director, Space Shuttle Program/MH	1		
P.N. Herr/MTG	1		
Attn: Office of Industrial Affairs & Technology Utilization			
Director, Technology Utilization/KT	1	Air Force Missile Test Center Patrick Air Force Base Florida	
National Aeronautics & Space Administration Flight Research Center P.O. Box 273 Edwards, CA 93523		Attn: Library	1
Attn: Library	1		
National Aeronautics & Space Administration George C. Marshall Space Flight Center Huntsville, AL 35912		Air Force Systems Command Andrews Air Force Base Washington, D.C. 20332	
Attn: Library	1	Attn: Library	1
J. L. Sanders/PD13	1	Air Force Rocket Propulsion Laboratory Edwards, CA 93523	
J. A. Lombardo/EP21	1	Attn: Library	1
R. J. Richmond/EP24	1		
F. W. Braams/EP24	1	Air Force Office of Scientific Research 1400 Wilson Blvd. Arlington, VA 22209	
R. D. Dramer/PD13	1	Attn: Library	1
National Aeronautics & Space Administration Goddard Space Flight Center Greenbelt, MD 20771		U. S. Air Force, Office of Information Office of Sec. of Air Force The Pentagon Washington, D.C. 20330	
Attn: Library	1		
National Aeronautics & Space Administration John F. Kennedy Space Center Cocoa Beach, FL 32931		Air Force ACro Propulsion Laboratory Research & Technology Division Air Force Systems Command U.S. Air Force Wright-Patterson AFB, OH 45433	
Attn: Library	1	Attn: Library	1
National Aeronautics & Space Administration Lyndon B. Johnson Space Center Houston, TX 77001		E. E. Bailey, AFAPL/DO	1
Attn: Library	1		
National Aeronautics & Space Administration Langley Research Center Langley Station Hampton, VA 23365			
Attn: Library	1		

Name	Copies	Name	Copies
Arnold Engineering Development Center Air Force Systems Command Tulahoma, TN 37388		Arco Incorporated Arnold Engineering Development Center Arnold AF Station, TN 37389	
Attn: Library	1	Attn: Library	1
Space & Missile Systems Organization Worldway Postal Center P.O. Box 92960 Los Angeles, CA 90009		Battelle Memorial Institute 505 King Avenue Columbus, OH 43201	
Attn: Library (Technical Data Center)	1	Attn: Library	1
Bureau of Naval Weapons Department of the Navy Washington, D.C.		Beech Aircraft Corporation Boulder Facility Box 631 Boulder, CO	1
Attn: Library	1	Bell Aerosystems, Inc. Box 1 Buffalo, NY 14240	
Naval Research Branch Office 1030 E. Green Street Pasadena, CA 91101		Attn: Library	1
Attn: Library	1	Boeing Company Space Division P.O. Box 868 Seattle, WA 98124	
Picatinny Arsenal Dover, NJ 07801		Attn: Library	1
Attn: Library	1	J. C. Y. Koh	1
U.S. Naval Research Laboratory Washington, DC 20390		J. L. Dutton	1
Attn: Library	1	B. A. Benson	1
U.S. Army Research Office (Durham) Box CM. Duke Station Durham, NC 27706		M. Baker	1
Attn: Library	1	Chemical Propulsion Information Agency Applied Physics Laboratory 8621 Georgia Avenue Silver Spring, MD 20910	1
U.S. Army Missile Command Redstone Scientific Information Center Redstone Arsenal, AL 35808		Chrysler Corporation Defense Space Group P.O. Box 757 Detroit, MI 48231	
Attn: Document Section	1	Attn: Library	1
U.S. Naval Missile Center Point Mugu, CA 93041		Denver Research Institute University of Denver P.O. Box 10127 Denver, CO 80210	
Attn: Technical Library	1	Attn: Security Office	1
U.S. Naval Weapons Center China Lake, CA 93557		Fairchild Republic Co. Fairchild Industries Farmingdale, L.I., NY 11735	
Attn: Library	1	Attn: Library	1
Aerospace Corporation 2350 E. El Segundo Blvd. Los Angeles, CA 90045		General Dynamics/Convair P.O. Box 1128 San Diego, CA 92112	
Attn: Library	1	Attn: Library	1
AiResearch Mfg. Co. of California 2525 West 190th Street Torrence, CA 90509		General Electric Company Valley Forge Space Technology Center P.O. Box 855 Philadelphia, PA 19101	
Attn: Library	1	Attn: Library	1
AiResearch Mfg. Co. of Arizona A Div. of the Garrett Corp. 402 South 36th Street Phoenix, AZ 85034		Grunman Aerospace Corp. Bethpage, NY 11714	
Attn: Library	1	Attn: Library	1
Atlantic Research Corp. 5390 Cherokee Ave. Alexandria, VA 22314		Hamilton Standard Corporation United Technologies Windsor Locks, Conn. 06096	
Attn: Library	1	Attn: Library	1

<u>Name</u>	<u>Copies</u>	<u>Name</u>	<u>Copies</u>
Hercules, Inc. 910 Market Street Wilmington, DE 19899		Pratt & Whitney Aircraft Group Government Products Division United Technologies Corp. West Plam Beach, FL 33402	
Attn: Library	1	Attn: Library	1
Honeywell, Inc. Aerospace & Defense Group Honeywell Plaza Minneapolis, MN 55408		Purdue University Lafayette, IN 47907	
Attn: Library	1	Attn: Library	1
Hughes Aircraft Co. Space & Communication Group P.O. Box 92919 Los Angeles, CA 90009		Rocketdyne Division of Rockwell International 6633 Canoga Ave. Canoga Park, CA 91304	
Attn: Library	1	Attn: Library	1
Hughes Aircraft Co. Research Laboratories 3011 Malibu Canyon Rd. Malibu, CA 90265		H. G. Diem W. R. Wagner J. M. Shoji	1 1 1 1
Attn: Library	1	Rocket Research Corporation 11441 Willow Rd., N.E. Redmond, WA 98052	
IIT Research Institute Technology Center Chicago, IL 60616		Attn: Library	1
Attn: Library	1	D. Emmons	1
Kidde Aerospace Division Walter Kidde & Co., 675 Main Street Belleville, NJ 07109		Space Division Rockwell International Corp. 12214 Lakewood Blvd., Downey, CA 90241	
Attn: Library	1	Attn: Library	1
Lockheed Missile & Space Co. 1111 Lockheed Way Sunnyvale, CA 94088		Stanford Research Institute 333 Ravenswood Ave., Menlo Park, CA 94025	
Attn: Library	1	Attn: Library	1
Marquardt Corporation 16555 Staticoy Street Box 2013 South Annex Van Nuys, CA 91409		R. J. Salkeld 5921 Floris Heights Road Malibu, CA 90265	1
Attn: Library	1	Thiokol Corp. P.O. Box 1000 Newton, PA 18940	
Martin-Marietta Aerospace P.O. Box 179 Denver, CO 80201		Attn: Library	1
Attn: Library	1	TRW Systems Inc. 1 Space Park Redondo Beach, CA 90278	
McDonnell Douglas Astronautics 5301 Bosa Ave. Huntington Beach, CA 92647		Attn: Library	1
Attn: Library	1	TRW TAPCO Division 23555 Euclid Avenue Cleveland, OH 44117	
McDonnell Douglas Aircraft Corp. P.O. Box 516 Lambert Field, MO 63166		Attn: Library	1
Attn: Library	1	United Aircraft Corporation Corporation Library 400 Main Street East Hartford, CT. 06108	
Northrop Corp. 1800 Century Park East Century City, CA 90067		United Technology Chemical Systems Division P.O. Box 358 Sunnyvale, CA 94088	
Attn: Library	1	Attn: Library	1
Pratt & Whitney Aircraft Group United Technologies Corp. 400 Main Street East Hartford, CO 06108		Vought Corporation P.O. Box 5907 Dallas, TX 75222	1
Attn: Library	1	Stanford University Stanford, CA	
		Attn: Library	1
		Dr. W. M. Kays	1

<u>Name</u>	<u>Copies</u>
University of Arizona Tucson, Arizona	
Attn: Library	1
Dr. D. M. McEligot	1
University of Minnesota Minneapolis, Minnesota	
Attn: Library	1
Dr. E. R. G. Eckert	1
Tel-Aviv University School of Engineering Tel-Aviv, Israel	
Attn: Library	1
Dr. S. Schweitzer	1
Department of Mechanical Engineering Yamagata, Yamagata Japan	
Attn: Library	1
Dr. Akira Sugawara	1
Case Western Reserve University 100900 Euclid Ave. Cleveland, OH 44115	
Attn: Technical Library	1
Dr. E. Reshotko	1
Dr. I. Greber	1
Dr. A. Dybbs	1
Dr. S. Ostrack	1





